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a personal note

from the editor

why gentlemen want to be farmers, and farmers will become gentlemen

THE FARM PROBLEM has been very much in the news lately. This is not because the assorted causes that make the problem have been more rampant this year than they were last year, or even ten years ago. It is just that the symptoms of the problem have a way of becoming more obvious in an election year.

Actually, the problem has been with us since 1900, when the farm population of this country found that it no longer was the primary contributor to the economic development of the United States of America. The statistical evidence should have prompted the reason of farmers as a class—the only economic group in this country which persists in being moved by a class consciousness—to make adjustments in the face of the new commercial-industrial economy. And, in fact, the farm population might have done just that, were it not for the fact that reason was overwhelmed by sentiment. And in this the farmers were encouraged by non-farmers. American society as a whole feels a need to admire the traditional qualities of the man on the land. The real problem is there—not in the symptoms of our besieged farm economy.

What follows in this personal note is a tape recording of a portion of a conversation I had recently with a business executive, who, in happier moments, describes himself as a gentleman farmer. The conversation was recorded because we were developing ideas to be incorporated in a speech. His incidental remarks strike me as particularly pertinent to the farm problem. This is what he said:

". . .Now, take my farm in Connecticut. The point is, I don't have to farm for a living, but I love it. A man's not a man unless he can get out of his pile of paper work and into the stimulating business of twisting Nature's tail for useful purposes. The man who gets too far from the land takes his livelihood for granted. But on the farm you have land, trees, water, air and sun. Man can't manufacture these. So you get a start, but the rest is up to you. You have to

work very closely with what you have. From the beginning of your work until the end, whether it's milk, eggs, tobacco or what have you, it's up to you to follow it through, nurse it, encourage it, raise it into useful and desirable proportions. It's all yours, and you make of it what you can. The success is all yours. So is the failure, if you fail. But whatever happens is between you and God. No one else can intercede. It's a personal kind of work, the most personal kind there is.

"Let me warn you of one thing, however. You have to be able to afford work like that. There is a world of complex economic factors that constantly interfere nowadays with this God-given work of Man. The outcome is no longer satisfactory, as many farmers will tell you today. The so-called farm problem—I'd call it a farm mess—is compounded of three very sticky attitudes. First, most farmers feel they *should* be farmers, come what may—a sort of sacred duty to stick by a trust. Second, politicians like to be re-elected. They understand the group attitudes of farmers, and they respect the regional impact, especially on the Senate, of the farm vote. And third, the moral code of America is built largely on the farm standard. Hard work, initiative, rugged individualism, honesty, decency, clean living and so on—all these come with the farm. We think about these things when we vote subsidies to keep the farmer in business.

"But here's something else to think about. People can be just as decent off the farm as on. People can work just as hard off the farm as on. A businessman can be as much a successful rugged individualist as a farmer. My wife was born on a farm, but she has told me a thousand times no farmer had to put in the hours I put in for the company. I still do twelve to fourteen hours a day. And as for the farmer's self-sufficiency, another generation of parity payments will give us a breed of farm dependents the like of which history hasn't seen since Tamerlane, in 1400, decided to put Samarkand's indigents on the dole. Now there's a story for you!

"Naturally, the farmer doesn't like to feel like a dependent. But he is, and he's trapped. We are all trapped—by our natural desire to feel free while bound to the soil, by political necessity, by misplaced loyalties, by anachronistic concepts of the source of our moral characteristics. It will be a hundred years before the farm problem ceases to be a problem. The solution probably will come out of the fact that all farmers will be gentlemen farmers, like me—people who can afford to enjoy farming, whatever the man-made vicissitudes may be in the work between God and the man on the land. . ."—H.B.

Challenge Notes

Political labels; measuring competition; interplanetary salesmanship

THIS is a Presidential election year, and it is inevitable, we suppose, that both parties should woo the electorate with something more exiciting, if less nourishing, than the plain unvarnished truth. Nobody votes on purely rational grounds anyway—a fact that philosophers may deplore but that most of us less-perfect beings accept as one of the hard little facts of life.

Still, we do wish that speech writers of both parties would stop labeling policies and start discussing them instead. We are a little tired of hearing the Republican party referred to as the "party of Big Business" or the Democratic party as a "hotbed of socialism." Both statements are patently absurd.

In a democracy of more than 60,000,000 voters, no party could long endure if it were generally suspected of "selling out to the special interests" (the special interests are always the other fellow's). To think otherwise shows a low opinion of the intelligence of the American voter.

It is equally absurd to describe the Democratic party as the party of socialism, unless we are willing to label nearly half of the nation's voters as socialists. Socialism, as an economic and political philosophy, has never gained a popular following here. The current voting strength of all the socialist parties combined is surely under 50,000, and probably considerably less.

Labels in politics have a way of sticking to a lot of people. If we get into the habit of calling the (other) half of the voters dirty names, we must not be surprised if they return the compliment.

Measuring Competition

HOW can we measure competition? In an economy such as ours where continued innovation and improvement largely depend on competitive pressures, this is a vitally important question. Unfortunately, there is no way of measuring competition.

Certainly, statistics on the proportion of an industry serviced by a particular company do not tell us very much about the amount of competition engaged in by that company. A firm may supply as little as 5 per cent of its market, and exert virtual geographic monopoly because it is isolated from its competitors, or because it enjoys cheaper resources and labor. On the other hand, a company supplying as much as 75 per cent of the market could be competitive because it wants to expand, or because it must compete with another industry. In a constantly changing economy no monopoly lasts forever, a fact which forces even the most powerful company to pursue competitive policies, if it wants to continue in business.

In the final analysis, the only way to measure the competitiveness of an industry is through its price and product policies. If a firm sells products of the highest possible quality at the lowest possible price, it is competitive no matter how successful it may be in the market.

Interplanetary Salesmanship

SHOULD you wake up one fine morning in the year 1975 with that dull headachy feeling, look up into outer space. A globular satellite, circling above and around the world, will advise you that "Soothing Space Tonic will relieve you of that headache in less time than it takes to yell Jupiter."

We owe this fascinating glimpse into the world of tomorrow to Professor S. F. Singer of the University of Maryland Physics Department, who sees great promotional possibilities for the space-minded businessman. Said Dr. Singer in a recent address before the Society of Automotive Engineers: "It is quite possible to visualize the satellite as a type of advertising medium built and owned by a corporation and leased to various advertisers. . . . The messages which it transmits could be changed from time to time at the discretion of the man who owns or leases the satellite."

We are surprised that nobody had thought of this intriguing possibility before. The implications are admittedly immense. As the satellite circles the world at a hundred miles above sea level, all earthbound inhabitants could learn of the benefits and delights of headache pills, tooth powder or what have you. A new way of using air commercially will have been found. And those of us who enjoy looking at the stars for inspiration, will have to look elsewhere.—M.K.

What is Competition?

by Lawrence Abbott

Competition involves more than price cutting; style and quality play an equally important role in the making of a sale

"THE AMERICAN PEOPLE strongly believe in competition. So do I. Competition is the driving force in our economy." These words might have been spoken by any of our top business leaders or politicians. (They are actually the words of Eugene Holman, board chairman of the Standard Oil Company of New Jersey.) They reflect the widely held view that competition in business benefits us all and is one of the reasons for America's phenomenal growth and material success.

But what is competition? What kinds of business behavior are effectively competitive?

Many persons—including numerous economists—would answer this question in terms of price-making and of price-changing. Lack of competition, we are told, results in high prices. Competition brings prices down.

Yet, the price factor is only one element in competitive behavior. Competition has another facet, perhaps equally important, which in recent years has loomed larger and larger in the day-to-day problems and decisions of businessmen. This "other half" of competition goes by the name of *quality competition* or *product competition.* It manifests itself not in price changes, but in changes in the design or packaging of a product, or in the quality of its materials, or in the type of services offered in conjunction with its sale.

Let us look at a recent instance of quality competition at work. In the morning newspaper field in New York City two full-size dailies—*The Times* and the *Herald-Tribune*—compete with each other for the more serious readers, while the highly successful tabloid *Daily News* caters to a

more popular audience and enjoys top circulation. In recent years, the *Herald-Tribune's* circulation dwindled, and its profits nose-dived. Under new leadership since 1954, it has been making a comeback. How? By the traditional competitive weapon of price-cutting? No. To cut the price of a five-cent article is not always practical. In the *Tribune's* case it might have proved suicidal, and in any event would not have touched the heart of the problem. Rather, the competitive weapon employed was the more powerful stimulant of changes in the contents of the newspaper.

General Motors' invasion of the locomotive industry with its diesel locomotives, Chesterfield's appearance in king size, and the auto makers' race to adopt the wrap-around windshield are other examples of competitive moves that have forced price considerations to take a back seat.

Competitive striving of this sort is a familiar phenomenon to most businessmen, but curiously enough the economist has tended to ignore it. In the college economics on which younger Americans have been brought up, competition is dealt with by setting up a theoretical model of "pure competition." This kind of competition has nothing to do with rivalry among goods; it concerns only rivalry among prices. It occurs only in those few markets where there are many buyers and sellers of a completely standardized product, like number two winter wheat, so that one seller's product is no better or worse than another's. By thus eliminating all other factors, the only basis of choice that remains is price. But since most of today's markets feature product differences as well as price differences, they are regarded as being "impure," or "imperfect," or "monopolistic."

From the economist's viewpoint it is easy to see why this distinction is made. The Classical economists of the nineteenth century were not concerned with minor differences in quality among competing products; they were too completely absorbed in the great, puzzling question of "value." What causes prices to be what they are? Alfred Marshall, the great British economist of the late nineteenth century, wrote about such products as tea, fish and leather as if their qualities were of no concern, so that price was the only important consideration.

Even today most economists remain chiefly concerned with price. Probably for this reason, quality

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competition is discussed in most scholarly books and textbooks as "product differentiation" and "product variation" and is described as a device to weaken the intensity of price competition.

SOMETIMES quality distinctions do serve that purpose. Branded goods often gain customer loyalty sufficient to maintain price differentials not warranted by the inherent quality of the goods. But more often than not, quality differences introduce a new dimension of competition. Joseph Schumpeter was one of the few great economists of this century to grasp this important fact. "In the case of retail trade," he once wrote, "the competition that matters arises not from additional shops of the same type, but from the department store, the chain store, the mail-order house and the supermarket."

Competition of this sort, of course, is nothing new. Medieval armorers stressed quality of workmanship and superiority of design rather than price as the main inducement to purchase. In a later era, the great furniture makers such as Adam and Sheraton, were concerned primarily with beauty, novelty and workmanship.

Nevertheless, quality competition has taken on a new importance in twentieth century America. There are a number of reasons for this. In earlier centuries, products were simpler, and there were fewer ways in which one firm's product could be made qualitatively different from another's. Consumers more frequently bought raw or semifinished goods rather than fabricated ones, and they did their own processing. Today, consumers buy bread rather than flour, clothing rather than cloth.

Modern technology, too, has made products increasingly complex. Automobiles, for example, are far more complicated than carriages and, therefore, offer more opportunities for variations in design and quality. With a rising standard of living and better education, people have become more discriminating and choose carefully from among competing clusters of similar goods.

This heightened importance of quality as a competitive factor has complicated the businessman's life. It is easy to see why. Quality variation is far more complex and subtle than price variation. The effect of a price change is child's play to judge; when a price is cut, the buyer is obviously better off. But with a qualitative change it is often difficult to tell whether the net result is an improvement or a worsening of the product. Decisions with regard to product quality are inherently

experimental and risky.

In changing a product, businessmen can move in three different directions. The most spectacular kind of change is best described by the word "innovation"—the introduction of a new modification or design that is so superior that the old version of the product passes into discard. Such product improvements as four-wheel brakes, the safety razor, steel-shafted golf clubs, etc., belong in this category.

A second type of change, requiring less imagination or adventurousness, is the upgrading or downgrading of quality. This involves a change in costs which usually requires a price change. Government grading of meat into such classifications as "prime," "choice," and "commercial" is an attempt to measure quality differences of this sort.

The third direction in which businessmen can move in altering quality might be described as sideways. There are many instances in which one quality cannot be rated better than another, but simply as more suitable or more appealing to a particular buyer. Differences in color, flavor, texture and shape are often of this kind.

Another reason why competing products in most modern markets are not all identical is that, lacking omniscience, manufacturers cannot be sure of what most customers really would like best. So they are forced to engage in a costly guessing game, aided by market research experts and their own intuition. Evidence that such game-playing can be costly indeed was provided in the 1930s when Chrysler introduced its novel Airflow styling. Car buyers reacted so unfavorably that Chrysler backtracked to recover its lost share of the market.

Does quality competition benefit the consumer as much as price competition does? This is a difficult question to answer. In some instances, it actually hurts the consumer by pulling the wool over his eyes. The rush of manufacturers to put chlorophyll into every conceivable product is perhaps a case in point. With certain kinds of consumer goods, such as cosmetics and insect repellents, price and quality have not proved to be closely correlated. In such cases, however, the injurious effects of quality competition are not due to the inherent nature of this type of competition but may be traced to consumer ignorance. This points to the need for better consumer education, more informative advertising and increased use of consumer testing services.

On the positive side, quality competition often provides a be-

fit equivalent to that of a price cut. In the automobile industry, for example, competition has typically taken this form. The result has been more car for the money rather than the same car for less money. If this year's Chevrolet provides more satisfaction than the Chevrolet of a decade ago, with no increase in absolute costs, the consumer in effect is receiving a price reduction on an unchanged Chevrolet.

Quality competition also offers benefits that price competition can never provide. It enables the consumer to satisy his wants more precisely. By doing so, it helps to eliminate the kind of waste that occurs in our economic world whenever a product is less than perfectly suited to the use its buyer makes of it. Unsuitableness may be a matter of taste, like the restaurant's roast beef which is too rare or too well done to please a particular patron. Or it may be a matter of inappropriateness, like the refrigerator door which should be hinged on the other side because of the unit's location in the kitchen. Or it may be associated with a missed opportunity for improvement in efficiency. Our federal government is now experimenting with a new arrangement of letters on the typewriter keyboard that it estimates will save millions of dollars by increasing typing speed and reducing fatigue. In each of these cases, unsuitablity could never be corrected by price competition—only by quality improvement.

How important has been the role of quality change in raising the American standard of living? Has it been as significant as price reduction? No one can really tell.

It would be a hopeless task to estimate the percentage increase in consumer satisfaction attributable to foam-rubber mattresses, nylon and dacron fabrics, plastic containers for fresh vegetables, power steering, etc. But one thing is sure. Andrew Carnegie, with all his 23-million-dollar annual income, could not have enjoyed these particular satisfactions in 1900.

Thus, it seems quite clear that quality competition has certainly played an enormously significant role in promoting progress. And there are no signs that it will not continue to do so for a long time. This is not to say that price competition need be shelved or considered unimportant. But the "other half" of competition—quality competition—certainly deserves to get its share of our attention. ■

AMERICA 1975
SERIES

The Union in Tomorrow's World

While maintaining allegiance to capitalism, unions will extend collective bargaining and encourage interest in politics

by Harold W. Davey

Most economic forecasts paint a bright picture of the next twenty years from the standpoint of economic growth, technological dynamism and improved living standards. Estimates of the anticipated rise in gross national product stagger the imagination. If we can continue to avoid war and the twin perils of inflation and deflation, there is no valid basis for predicting any *fundamental* change in the character and objectives of American trade unions.

Collective bargaining with employers will continue to be the chief instrument for improving the union member's position in the economy, and the scope of collective bargaining should be considerably broadened by 1975, reflecting a more inclusive view of union responsibility than that encompassed by the traditional "more-now" approach. However, it appears unlikely that American unions will move in the direction of joint management of enterprise.

Ever since the late nineteenth century when Samuel Gompers first put the stamp of his thinking on the American labor movement, unionism in the United States has been basically conservative in its procedure and objectives. With rare exceptions, American unions accept the private enterprise system, which they seek to perfect and improve rather than overthrow or drastically modify.

The key to the conservatism of American unions is the American worker himself. Having middle-class objectives, he seeks to own his own home, a car, a TV set and other consumer durables and is mainly interested in se-

curity of income and employment, not in ideological change. So long as he can achieve such objectives he will be content with the economic system and with his union.

Most workers do not aspire to be independent businessmen. They expect to remain wage earners and seek through collective action to secure and improve their status as wage earners. Only in this sense are American workers class conscious. This explains why the overwhelming majority of them envisage their union as an "insurance agency" rather than as a "way of life."

Even so, the recent merger of the AFL and CIO has stirred fear and foreboding in certain circles. The new federation is envisaged as a monolithic entity that will in a short time achieve enormous economic and political power.

This picture is seriously exaggerated. First, the merger still leaves genuine labor unity far from being achieved. The national and international unions affiliated with the new AFL-CIO federation are still the power centers in the union movement. There is a strong tradition of autonomy in the American labor movement, and it is extremely unlikely that 138 national and international unions will suddenly begin to march to one tune played by George Meany. The merger may add somewhat to the strength of each member union on the bargaining front, but it is important to remember that employers are also better prepared for collective bargaining than at any prior time.

The future impact of the merger on labor's political power is also being exaggerated in current comment. True, the merger will probably result in increased political effectiveness by organized labor. But, there is little evidence that there is a labor party in the offing or that there will be any magical improvement in delivering the so-called "labor vote." The merger should result in more effective lobbying on federal and state legislative fronts and it may contribute to labor's greater effectiveness in turning out voters on election day. But the ominous picture of 17 million union members and their families voting as a single bloc is simply not justified.

In this connection, it is well to keep in mind the strong individualism of the American worker. The few empirical studies that have been made show that he feels that his union

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should devote time, money and energy to political action. However, when it comes to dictating how he should vote, the rank-and-filer prefers to make up his own mind and shows no enthusiasm for a labor party.

WHILE the foregoing discussion suggests that the 1975 model of the American trade union will be basically similar to its 1956 counterpart, there will be some significant new developments. First, union leaders appear to be increasingly aware of the need for building and strengthening "union citizenship" so that the union movement may retain its vitality and dynamism. They know that membership apathy promotes lethargy and smugness and that the best insurance of a strong union is a better-informed, participating rank-and-file. Therefore, thoughtful leaders will appreciate more and more the necessity for greater membership participation in union affairs and for an intensified program of workers' education.

Enlightened self-interest should also lead most unions during the next twenty years to place a high premium on maintaining vigorous internal democracy, on improving the literacy of their membership on union problems and objectives and on developing future leaders by avoiding stifling centralization and bureaucratization.

Turning now to the area of economic policy and collective bargaining, what will a 1975 union contract look like? When one considers the sweeping changes in union-management relations that have occurred in the past twenty years, the margin for error in a twenty-year forecast in such a dynamic field is obviously great. However, few social scientists can resist an invitation to speculate on the future.

By 1975, then, many of today's most troublesome issues in collective bargaining should have been largely resolved. Foremost among these is the issue over requiring union membership as a condition of hiring (closed shop) or as a condition of continuing employment after the probationary period (union shop). By 1975, trade unionism and the institution of collective bargaining will be so generally accepted as an integral part of the industrial relations framework (even in most areas that are currently not unionized) that the union security issue will be largely of historical interest.

The issue over the rights of management and the proper scope of collective bargaining should also be fairly well resolved by

1975. Many employers today genuinely fear that the ultimate aim of unionism is joint management, if not joint ownership, of industry. The scope of collective bargaining has, it is true, expanded greatly in recent years. However, there is little evidence that unions are interested in sharing or taking over essential management functions because they feel that union involvement in management decisions would diminish their vitality and effectiveness as protest organizations. This they do not wish to do.

UNIONS *do* seek to control and condition the exercise of management discretion on matters directly affecting the worker on the job. With some exceptions, this is the extent of their ambition.

Many companies and unions have already succeeded in reaching a satisfactory understanding on the potentially explosive issue of what is bargainable and what is not. Others should achieve such an understanding in the years ahead as companies and unions become more accustomed to dealing with one another on a continuous basis and in good faith.

It is also to be expected that the present industrial union emphasis on strict seniority as a criterion governing layoffs, recalls and promotions and the continuing craft union suspicion of technological change should have largely disappeared by 1975. Many such provisions are based on a continuing fear of cyclical or technological unemployment, for American unions still operate on an assumption of a scarcity of job opportunities.

But projected economic and population growth, coupled with increasing governmental competence to prevent serious maladjustment in the economy, should permit unions by 1975 to convert fully from negative, defensive and frequently self-defeating restrictionism to *positive efforts to earn more by producing more.* Most industrial unions and many craft unions today no longer attempt to block or impede technological change. Instead, they seek to cushion the impact of such change on workers in a particular industry or craft. These forward-looking unionists recognize that improved living standards depend on increasing, not restricting, productivity.

BY 1975, straight seniority, all forms of featherbedding and work restriction, and other contractual provisions rooted in the unions' desire to conserve a limited number of job opportunities

may well have disappeared as issues at the bargaining table. It is also entirely possible that payment by the piece or by the hour may give way to payment by the year for most blue collar workers.

The strike, the lockout and the boycott should become virtually obsolete by 1975, if our previous optimistic predictions prove accurate. Today the bitter, prolonged strike is the exception rather than the rule. Furthermore, the nearly universal adoption of arbitration as the last step in the grievance procedure has drastically reduced strikes during the life of a union contract. Continued improvement in this direction may be anticipated.

The image of unionism in 1975 now emerges. The primary emphasis of the 1975 union will still be on collective bargaining, and the union twenty years hence should be more democratic internally and should impose no discriminatory or arbitrary obstacles to membership.

The union member in 1975 will be better educated, better trained and more politically literate than his 1956 counterpart. However, the 1975 union member will still be basically conservative in his outlook; he will seek no revolutionary reforms in the system, nor will he be favorable to a labor party, *per se*. He will be primarily interested, as are unionists today, in improved income and employment security.

Yet, the 1975 unionist will have a broader and more balanced outlook than is common today. He will be more interested in world affairs and national problems and issues in his own community. He will play a more active role within his own union than does the contemporary unionist. While his basic conservatism will not prevent him from becoming militant in defense of gains achieved at the bargaining table or in legislative halls, he will remain an uncompromising opponent of any form of totalitarianism.

Most American union leaders and union members are practical men who yield to no one in their basic devotion to the American political and economic system. Consequently, they may be expected to seek to improve and perfect the working of that system rather than to destroy or supplant it with another. ■

The Ailing Aged

DISABLING illnesses among people over 65 last twice as long as those involving persons 15 to 64 years of age. But brief illnesses, of less than a week, are less prevalent among the older groups.

AMERICA 1975

SERIES

The Corporation in Tomorrow's World

The corporation in 1975 will be bigger and more impersonal, and will undertake increasing responsibility for the economic security of employees

by Eli Cantor

As a creature of the economy in which it operates, the corporation of 1975 will necessarily reflect the growth of American society, new market needs, developments in materials, processes and products. Basic is the rise in population. From 164 million today, the prospect is 200 million by 1975—some 36 million more people to feed, clothe, house, transport, amuse. In market terms, this means that the United States will have added three new states about the size of Pennsylvania, or close to fifteen Connecticuts.

While growth of population is, of course, no guarantee that people will be ready and able to fill their requirements, the prospect is for a gradually enlarging economy over the next twenty years, with only temporary interruptions.

Interestingly, the presence of the large corporation is, in itself, a vital factor in this forecast. For the long-range planning of the giant company adds an element of stability which helps iron out cyclical ups and downs. What General Motors spends on capital equipment in 1956 may well have been decided in 1954 on the basis of market expectation for 1958. As the trend toward big business in many industries continues in the next twenty years, this new factor of long-range planning will play a weightier part in determining the state of our economy.

It is, of course, remotely possible that a large number of giant corporations might find their major projects for a given period completed at about the same time. If that should happen, the contraction of business

spending for capital equipment could result in a crash of terrible proportions. But the probabilities point strongly against such an occurrence, if only because the cyclic patterns vary widely as among producers of raw materials, makers of consumer goods, suppliers of machine tools and other capital equipment, and so on.

Long-range, it is hard to see anything on the horizon to blunt the fundamentally strong upward pressures in the economy. Basic demand is high, speculation is low and safety cushions adequate. And Washington, come Democrat, come Republican, will take timely action to nip credit excesses, stimulate purchasing power and alleviate hardships in the years ahead.

Against this background of economic expansion and prosperity, what will be the shape of the business community?

On the surface, there may not be as many visible differences from today as might be expected. There will still be many small companies; all competition will not be dead or dying. There will be more automation in some industries, but we shall be far from the nation of robot factories dreamed up in the Sunday supplements. The industrial landscape may not yet, in twenty years, be substantially altered by atomic fuels. The movement away from urban centers is likely to go on, since the helicopter will ultimately free industry from the strait jacket of roads, rails and waterways. But it is doubtful, for all the speed of modern technology, that this revolution will be more than getting under way in twenty years.

It is inside the corporations that the deepest changes will have taken place. By 1975, there will be widespread acceptance, among smaller ventures as well as large, of the new role of the business "manager." As Harold Smiddy, vice president of General Electric, acutely observes, the manager's job is increasingly to set objectives and direct the team toward the goal, leaving to the technical expert the largest possible amount of responsibility and discretion. The requirement for training management as a separate profession will be more widely recognized, both within business and by schools and universities.

There will be even greater separation of ownership from management as the tide of mergers rolls on, impelled by a number of powerful forces. First, the inheritance tax operates to throw smaller companies into

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the arms of large purchasers. Second, the pressures for ever-rising productivity, in response to ever-rising wage demands, work to the same effect. The growth of industry-wide union organizations leaves small employers engaged in mass production at an increasing disadvantage. Third, the needs for long-range planning, large financial resources, great research investments, all encourage a trend toward bigness and away from individual or family ownership. Finally, diversity of product and market will become increasingly urgent for stability of operation, if not indeed for survival.

It is important to recognize that this last force, already strong in many industries, is in large part the result of labor's gains in recent years. The concept of the guaranteed annual wage, for example, implies a continuum of profitable operation by the enterprise which undertakes the obligation. The recent proliferation of fringe benefits imposes obligations—such as employer contributions to welfare funds or insurance contracts —which companies, large and small, are expected to be able to carry, come bad times or good. For the smaller company, such commitments are more likely to be a handicap than for the larger enterprise. This consideration is underscored by the fact that in most industries the prosperity of recent years has been relatively less profitable for the small firms.

CORPORATE goals and policies will, by 1975, fully reflect trends which still seem tentative today. Thus, the business enterprise of 1975 will increasingly become a provider of economic security in the form of annual pay, insurance (against both sickness and death), pensions, and so on. The aspiration of young people, accordingly, is likely to be maximum security at minimum risk, rather than a chance to try for great rewards at substantial risk. This alone probably means that fewer small ventures will be started in the next five to ten years.

A major characteristic of today's capitalism is that large reservoirs of funds keep pressing for investment. To the traditional group of insurance companies, banks and trusts now are added the great labor welfare and pension funds, and the investment funds operative in the stock exchanges. The very presence of these resources tends to encourage equity financing rather than debt operations by business, at least for large corporations.

It is certain that the corporation in 1975 will be spending huge

sums for research. It is not generally realized today, but only some fifteen years ago the *total* annual expenditure for industrial research could be measured in the millions. As of 1955, the annual investment in research by business was approximately four billion dollars, and rising rapidly.

GENERALLY overlooked, too, is the fact that we have not yet felt the full impact of these research investments. It is in the next ten years that we shall see harvest after harvest of new products and processes ripening from the seeds which are now being sown in the laboratories. What this can mean for business, consumers and the economy is indicated by the case of Radio Corporation of America, which this year finds fully 80 per cent of its one billion dollars of business *coming from products and services which were not on the market at all ten years ago.* An RCA executive adds: "New developments lead us to believe that 80 per cent of the business done in electronics ten years hence will again be in things that have yet to reach the market." Given the accelerated pace of research which competition will engender, the RCA prediction will probably stand even stronger for 1975 than for 1965.

But will competition survive the trend to bigness?

It is impossible to give a yes or no answer to this multi-dimensioned question. In some industries, the only effective resistance to monopoly can come from Big Government, and it is not improbable that the political dynamics of the next twenty year *will* bring strong federal control or supervision of mergers and vigorous policing of the antitrust laws.

In many industries, however, the brake on concentration will be economic rather than legislative. As is the case today, there will be services, crafts and skills which the giant companies find uneconomic to provide. It is worth remembering that the industrial mobilization of World War II did *not* result in the post-war concentration of industry which seemed inescapable to many observers, including this author. There is a separate and genuine role for the small company, and there is a resourcefulness in American small business which will continue to help it play that role even in the face of difficulties.

Besides, the development of great corporations does not in itself mean the disappearance of competition. Contrary to the experience of European cartelization, there are many American

examples of intracorporate battles for the consumer's dollar. Buick Division of General Motors, for example, genuinely fights with Pontiac. Ford does genuinely wrestle with Mercury. Du Pont's different fiber products actively compete with each other.

Are the results of such competition illusory? The ultimate test is in the price arena. It is here that the most significant of all the developments of the next twenty years may lie. For monopoly pricing on a large scale would, in America, collide eventually with the resentment of an aroused public; and consumer resistance could well be transmuted into a new political force. Extremes of any kind in American history have always bred their own opposition and correction, and there is reason to expect that by 1975 the Big Consumer will have a political identity and voice as effective as Big Labor's on the one hand and Big Business' on the other. The challenge of 1975 will be whether Big Government is able to balance the interests of all three—and that of Small Business, too.

Such a balancing would be characteristic of a "People's Capitalism"—to use the name given by the United States Information Agency to an exhibit designed to show the rest of the world the social and economic advances of the American system today. By coincidence, at the very moment the Communist Congress at Moscow was being told of the inevitability of the collapse of capitalism, *The New York Times* commented editorially on the title, "People's Capitalism," in these words:

"An ever-increasing proportion of our people share in the ownership of industry and also in the rewards of their increased productivity—through higher wages and more abundant goods sold at prices they can afford to pay."

True today, truer tomorrow. As *The Times* adds: "In very fact, our capitalism *is* the people's. It is time we told the world so every time we name it." ■

Oldest Living Thing

THE OLDEST living thing on earth is believed to be a tree—a cypress tree—at Rio del Tulle, Mexico. The National Lumber Manufacturers Association estimates that the tree is between 5,000 and 7,000 years old.

When NEW Industries Come In

by John Thorkelson

The entrance of new industries in a region tends to level incomes up and make the area less dependent on any one industry

FOR the past ten years, government agencies have been urging industry to decentralize and move away from urban centers for defense and other reasons. Some economists have made the same plea, stating that decentralization lessens the dependency of any one area on a particular industry, builds up the poorer sections of the country and tends to even out interregional income differences.

But the fact is that American industries have long been dispersing and decentralizing. At the beginning of the twentieth century, 47.6 per cent of cotton textile mill capacity was located in New England; today the South leads New England in cotton textile output by more than three to one, and is rapidly gaining in synthetic fibers, as well. In 1900, more than half the nation's iron and steel came from the Pittsburgh area; today approximately 60 per cent is produced outside the area. New York and Philadelphia once produced nearly all our ready-made garments; today, little more than half the industry is outside the Middle Atlantic area.

Why have these shifts taken place? Some industries, such as the shoe and garment trades, simply followed the westward shift of population, and hence of markets; while others—textiles, steel and iron, as well as food preparation, lumber milling and mining—have been moving toward their chief sources of raw materials, fuel and/or power. In fact, the area where any firm or industry tends to concentrate is determined largely by the location of cheap raw materials and other resources, and proximity of markets. Therefore, as one or the other factor changes, the industry's center of gravity is bound to shift also.

This does not mean that an en-

tire industry literally "moves." At first, new plants supplement rather than replace those already in existence. What is more important is that the new plants are generally established away from the older ones and are rarely as highly concentrated geographically. Typically, the new centers grow faster, but it may be decades before the older ones decline. As recently as 1947, the textile industry still employed more of New England's workers than any other single industry, and Pittsburgh's steel output is still growing in spite of migratory trends of new plants.

Concentration and dispersal of a particular industry is also affected by the location of closely related industries. For instance, New England's machine tool shops started as adjuncts to textile mills, first to repair and later to build replacements for textile machinery. Similarly, from the repair shops of countless midwestern lumber mills and furniture factories there grew the midwestern machine tool industry. The mills declined, but tool manufacture remains. The automobile industry developed in cities that were well-known as carriage producers; aluminum production is closely tied to power production. And more recently, the growth of chemical plants in the Gulf states is clearly related to the prior development of oil and gas extraction in that area.

What do such movements do to the region (or state or city) where a particular industry was formerly concentrated? Does decentralization weaken or strengthen the older area? As the position of "leading" industries deteriorates, do other industries fill the gaps? What are the net social and economic effects of industry movements on the affected region?

BEFORE exploring these problems, one central fact about geographical concentration needs emphasis. There are remarkably few cases where the state which produces most of any given product depends *mainly* on that product for its economic well-being. This was true fifty years ago. And it is even more true today, for decentralization has left its mark. The Middle Atlantic states (New York, New Jersey, Pennsylvania) produce nearly half the nation's wearing apparel—but this industry employs less than one-sixth of the area's production workers. Half of all textile mill goods are produced in the southeastern states; but the total employment of other industries in the same states is nearly four times that

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of textiles. Half of the nation's machinery comes from the five states of the old Northwest Territory (Ohio, Indiana, Illinois, Wisconsin, Michigan) yet only one in six of the region's production workers is employed in this industry. And these are the most concentrated of our major industries today.

These examples point to an important general rule: the producing center of any major industry is usually the home of many other industries. Consequently, the migration of a given industry—or, more accurately, a rapid growth in newer regions and slower growth or stagnation in older ones—does not normally leave an absolute vacuum. The shock of losing the dear departed is generally eased by the appearance of new faces.

Nevertheless, both industrial migration and decentralization involve great costs. Even if new industries appear, textile mill hands cannot readily be converted into machinists; steel workers do not necessarily make good tool and die men. Physical plant as a rule is more readily convertible than skills, but boarded-up factories and weed-grown mill foundations in every state stand witness to the exceptions. If no new firms appear, there will be rising relief costs, overstrained local property tax structures and mounting unemployment benefit payments.

There are, fortunately, substantial economic forces at work to help us solve these problems. So long as the whole economy is expanding, industrial decentralization may even aid the affected communities by stabilizing and raising average incomes. Seasonal unemployment in one industry may be offset by seasonal expansion in another. The factory town whose entire economy rested on a single payroll is becoming less typical, thus presenting fewer social problems.

MANY features of today's better-trained labor market also help strengthen a community by encouraging the growth of more efficient new industries, and by tending to "level up" wage differentials. Today's factory worker thinks little of driving twenty-five or even fifty miles to work daily, whereas his father's employment opportunities were limited to the trolley line terminals. This increased mobility tends to restrain industries from undercutting prevailing standards in wages and labor conditions.

Unemployment insurance similarly helps by giving the laid-off worker time to find work at acceptable wages. Laboriously learned skills are often less necessary today than formerly; in

some cases, a brief training period has replaced the long apprenticeship. In a period of high employment this encourages new industries to seek out labor surplus areas. The higher educational qualifications of the coming generation of wage earners will also open the door to varied opportunities. Unions, bargaining for industry-wide wage standards, weaken the cheap labor areas and encourage more efficiency.

New methods and technological improvements which increase productivity also aid diversification and decentralization. The steam engine, and later the electric motor increased efficiency *and* freed industry from a dependence on established mill sites. Truck transportation opened up vast areas away from railroads for industrial development. Such improved marketing facilities make manufacturers less dependent on any one region, and make it easier for new industries to enter an area.

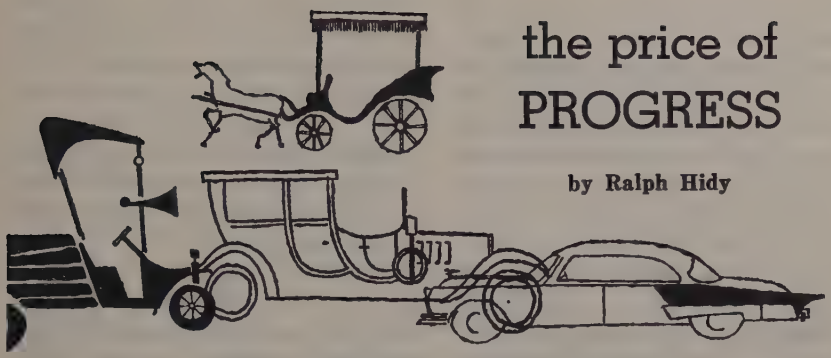
Moreover, as a region matures and diversifies, there seems to be a tendency for occupations other than manufacturing to increase. The service trades (recreation and tourism, financial institutions, etc.) naturally increase in proportion to an area's population. Thus, the community's dependence on a few concentrated industries lessens.

What net effect, then, does regional diversification of industry have on the stability and welfare of the nation's economy as a whole? The answer is not altogether clear. Our economy has depended a good deal on heavy military and foreign aid expenditures for the past sixteen years, so that its basic performance capacity in terms of real income and built-in stability cannot easily be demonstrated. But some effects seem probable.

First, diversification in any area seems to level incomes on a rising plateau, and thus raise living standards.

Second, as manufacturing spreads out from the older centers, interregional income differences decrease. New England's average income continues to rise and is still above the national average, but the gap lessens every year. The South, like other more recently developed areas, is gaining on the high-income states.

The national economy is, therefore, becoming more homogeneous and less subject to the drag of low-income areas. It seems probable, in the final analysis, that decentralization makes all regions benefit more equally from high national employment and income. ■



the price of PROGRESS

by Ralph Hidy

Whether in good times or bad, changing tastes and technological developments force us to pay the social and economic costs of change

AMERICANS have traditionally been much concerned with material progress, but they have not always shown a similar interest in the costs of change and innovation, whether technological, administrative or otherwise. Economists, for example, have long dwelt on the profits resulting from innovation, but they have said little about the costs to individuals who sank their labor and capital in experimentation, invention and business failure during the early stages of developing commercially successful products. Some historians, it is true, have dealt with the social maladjustments induced by change, but without realizing that such maladjustments are often the necessary price of progress.

Perhaps Newton's Third Law of Motion, that to every action there is always an equal and opposite reaction, cannot be applied directly to human affairs, but there certainly is reason for examining some of the "negative" evidence of the impact of change on our economic and social order. What individuals or groups have felt the adverse effect of change and innovation? What are some of the industries that have declined, relatively or absolutely, as the result of new ideas or products? How have the social costs been absorbed?

Let us look at some examples of industries whose decline can be attributed to the impact of innovations and substitutes. Buggy and wagon manufacturers, makers of cigars, producers of coal and railroad companies are four examples that immediately come to mind.

A host of interesting factors

have led to changes in these and other areas. Increase in scientific knowledge, application of that knowledge to mechanical invention, better administration of land, labor and capital, increase of per capita income, accumulation of savings, growth of leisure, human inclination to reach an objective with a minimum of effort, affinity for speed, the capitalization of time—all these elements have worked together to initiate and carry through innovations which have had both socially constructive and socially destructive effects.

Right now, the railroads provide a prime example of an older industry that is experiencing increased competition due to innovations in transportation. The first major loss of traffic by railway companies occurred between 1875 and 1885 with the transfer of virtually all crude oil shipments to pipelines. For a time, the cost of that loss in freight volume was partly defrayed by rebates from Standard Oil pipeline companies and was largely forgotten in the general increase of railroad traffic. But the more recent competition from trucks and airplanes has been even more serious. For more than thirty-five years the railroad's share of intercity traffic, both passenger and freight, has been diminishing, and the end is not in sight. Trucking companies continue to seize more and more long-distance freight, having secured most of the short-haul business years ago. Air transport companies are carrying a larger and larger share of the passengers moving between cities on common carriers.

Buggy and wagon manufacturers have been the victims of the same general developments in highway transport as the railroads. As American consumers discarded buggies, carriages (with or without fringes on the top), carts and wagons for automobiles and trucks, manufacturers of these vehicles were ultimately faced with the alternative of going out of business or shifting their assets and techniques to another enterprise.

Cigar makers have not disappeared as have the buggy and wagon manufacturers, but as a group the producers of cigars have fallen far behind cigarettes in the race for the smoker's dollar. Since World War I, the cigarette-smoking habit has become firmly established among the mass of the population.

For more than seventy years coal producers have been faced

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with the threat of ultimate displacement. In 1885 coal ranked supreme as the generator of heat and energy. Beginning with sulphur-bearing petroleum in northwestern Ohio and with later finds of heavy crude oil in California and Texas, petroleum has steadily expanded its challenge to coal as fuel. Thus, the rise of petroleum and natural gas has been a major factor in the relative decline of coal production in the United States. On the immediate horizon is atomic fission, and the harnessing of solar energy may pose additional worries, if current research turns out as some people anticipate.

WHAT are some of the other current changes involving heavy social cost? Some of the most important of these are to be found in the agricultural sector of the economy. Potato growers and wheat producers have been trying for a generation to adjust to a change in the eating habits of American women. The decision to emphasize the svelte figure led women to eat fewer potato and wheat products, and male eating habits reflected feminine inclinations. As a result, per capita consumption of these items declined, and previous rates of expansion in production could not be maintained. Certainly, it is no historical accident that both products have been on the support lists of the federal government. In cotton production, the competition of foreign growers and of makers of synthetic fibers has been so strong that the American taxpayer and consumer, through federal legislation, has been forced to cushion the shock of the change.

Prior to the twentieth century the costs of innovation were usually involuntarily assumed by individuals and firms who found themselves either unable to produce an innovation or to compete successfully with new enterprises. The life of inventors was traditionally hard, though there were such exceptions as Whitney, Fulton, Westinghouse and Edison, to name a few. In many instances, however, their successes were the result of assessing the mistakes and failures of predecessors who did not reach the pinnacle of producing a generally salable product. The history of the textile industry affords a classic example of a new method exacting costs from those using an older one. The adoption of the power loom drove hand-loom weavers out of business and to desperation on more than one occasion. Laboring groups shared the burden of costs through becoming the victims of technological unemploy-

ment, though it must be said that this result of innovation is even more difficult to weigh and assess than the part assumed by businessmen.

Absorption of the costs of innovation by the failure and dissolution of firms has been far from unknown in the twentieth century. The large number of failures among small farmers is witness to the fact. With the Ford, General Motors and Chrysler companies, producing 95 per cent of the automobiles in the United States, the question might well be asked what has happened to the makers of the estimated 2,300 types of cars that have been offered to the public since 1895. Some have disappeared through merger, some through dissolution, some through bankruptcy and failure.

Some producers of outmoded or declining products have avoided paying the full costs of progress by making timely adjustments in their business operations. A wagon manufacturer could take the accumulated earnings of that business and invest them in the manufacture of automobiles, gradually reducing the production of wagons and writing off losses. The Studebaker family followed this line of procedure. Oil companies were fortunate in being able to expand sales of a former by-product, gasoline, just at the time when sales of kerosene for lighting were declining as a result of competition from the more efficient, cleaner, steadier electric light. In this instance, oilmen profited mightily from an innovation, the automobile, which appeared at a propitious moment and with a minimum of assistance from them.

Today, instead of individual firms involuntarily paying the price of progress by failure or dissolution, millions of stockholders sometimes voluntarily absorb the costs of innovation arising from competition. The owners of some railroad securities, through low earnings on investment, are assuming the burdens brought on by the race with automobiles, trucks, buses and airplanes for passengers and freight. Some of the same shareholders offset the relatively low incomes in the railway category by owning stocks in the rapidly growing automobile and aircraft manufacturing firms.

In some sectors of the economy today the same body of stockholders pays the cost of inducing innovation and reaps the profits as well. Research is initiated and carried on within the corporations themselves. If an experiment fails, the stockholders pay the bill. If an idea holds

promise of a new commercial product, the stockholders underwrite the costs of a pilot plant, market analysis, advertising and experimental marketing. Investors in Du Pont enterprises paid for research and experimentation on nylon and reaped the profits of the successful commercial application of the newly developed fiber. Weavers of rayon hose shifted to the manufacture of nylon stockings, accepting the loss on rayon, while making profits on the nylon product for which there was greater demand.

Far more comprehensive is the action of governments in this field. Though attempts by individuals in the past to get special "cushioning" legislation were not unknown, the voters and taxpayers of the nation, through their governments, now assume many of the costs of change and innovation. Federal and state governments help farmers find new types of products, provide guidance in producing them and offer financial aid in a variety of forms either for inducing innovation or absorbing losses arising from foreign competition. Similarly, the entire American electorate helps to assume burdens of laboring groups caused by technological and other types of unemployment through maintenance of employment agencies, unemployment insurance and other state and federal assistance.

From the foregoing analysis it appears that the pattern for absorbing the social costs of change and innovation has changed since the nineteenth century. One hundred years ago individuals and firms which failed to achieve innovation, and firms competing with innovators, paid the primary price of progress. This method of cost absorbtion has not disappeared, but shareholders of large corporations and the general public, through the medium of governmental agencies, have gradually assumed a greater share of the social costs of change and innovation. Perhaps these developments might be more carefully analyzed and weighed by administrators in connection with other policies of large corporations and of governmental entities as well as by students of human behavior who are interested in such problems. ■

Toothsome Tax Laws

CONVICTIONS for criminal violations of income tax laws numbered 606 in 1955—a new high. In 1954 the total was 542; in 1952 there were only 377. The tax cases are developed by the Internal Revenue Service and prosecuted by the Justice Department.

GAW ABROAD

by Egon Kaskeline

European experience indicates that GAW succeeds only when offered by highly stable firms; it fails when imposed on a national scale

MANAGEMENT and labor in the American automobile industry concluded a history-making pact when the companies agreed to pay supplementary unemployment benefits to laid-off workers. Whether for good or bad, this contractual arrangement has been followed and will continue to be followed by similar arrangements with many other unions, among them some of the country's largest, like the Steelworkers and the Teamsters.

But the concept of a guaranteed annual wage is nothing new. Here as well as abroad there are many such schemes, long in operation, some put into effect by individual companies, and others, as in Italy, imposed by law on a larger scale. In the United States alone, as early as 1944, a study listed 196 management-union contracts with wage guarantees covering some 60,000 workers.

In Europe, the employee benefit plans which most resemble the recent American "guaranteed wage" plans are to be found in Great Britain. As far back as 1922, the Rowntree Company of York, England, a cocoa and candy producer of international renown, established a special fund to supplement the unemployment benefits which its temporarily unemployed workers received under the National Unemployment Insurance Act.

Conceived by B. S. Rowntree,

one of Britain's most progressive employers, the English scheme was worked out in close cooperation with the trade unions concerned, who also have a hand in administering the company's unemployment fund. (It is interesting to note, however, that Rowntree has always rejected proposals to grant labor a joint share in the management of his firm.)

The results of Rowntree's experiment proved very satisfactory. Even in 1930, when Britain suffered in the big depression, the costs of the plan were comparatively small. Still, the company's additional unemployment grants have always been appreciated enormously by the workers and, along with an old age pension plan and death benefits, have contributed to labor peace.

Probably the oldest example of an indirect income guarantee program, however, comes from Germany, where, as early as 1891, the businessman-social reformer Ernest Abbe, one-time owner and manager of the famous Zeiss Optical Works in Jena, conceived an elaborate unemployment compensation scheme for his employees.

At a time when labor's rights in industry were still widely contested, Abbe denounced strongly "the scandalous system which permitted of a large number of workers to be induced to flock into manufacturing centers in prosperous times and to be thrust again on their resources in times of business decline."

To remedy this injustice, the German reformer introduced the Zeiss plan, one of the most liberal employee programs in history. In case of unmerited dismissal, any worker with more than six months' service would be entitled to a compensation ranging from 16 to 25 per cent of his total wages during his entire employment with Zeiss. There have been cases where, during a business slump, skilled workers with sixteen years of service received four years' wages as indemnity.

Nevertheless, the plan proved to be relatively inexpensive for the firm and served to promote stable employment and good management-labor relations. This state of affairs helped Zeiss to produce a steady supply of quality lenses, cameras and other optical equipment, and the firm never had trouble securing a market for its total production.

The Zeiss and the Rowntree plans have several striking similarities. Both schemes were not arrived at through collective

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Egon Kaskeline has contributed many fine articles to CHALLENGE dealing with the European economy.

bargaining, as were the GAW agreements in the United States, but were initiated by socially minded employers. Further, both plans were originated by firms of international reputation, firms which have secure markets at home and abroad, and therefore, enjoy relatively stable production schedules.

Various other forms of wage or employment guarantees have been included in labor contracts in Great Britain, France, Japan, New Zealand, Australia and other countries. But these plans benefited only a very small percentage of industrial labor. In the entire British Commonwealth, for example, such plans covered fewer than 100,000 workers.

Sometimes wage agreements have been made under strong union pressure or have been imposed indiscriminately on management by public law. Where this happens, such plans can prove extremely harmful. For example, the most striking instance of a state-imposed plan for supplementary unemployment benefits for all major industries was conceived in postwar Italy. A law promulgated in 1947 to draw away workers from Communist leadership provides for supplementary company payments for all employees working less than forty hours a week. This law is largely responsible for Italy's large and chronic unemployment, since Italian employers, who hesitate to dismiss regular workers, are even more reluctant to hire new ones. Rather than pay high unemployment benefits to dismissed workers, companies will stretch out work and refrain from expanding their business. And, in order to have security for members who are steadily employed, Italian trade unions accept a situation where millions of others cannot find work at all.

Considering the experiences with wage guarantee plans in Europe, one is led to several general conclusions. First, these schemes, if imposed indiscriminately on industry on a nationwide scale, are bound to hinder severely effective management and cause serious economic damage. The record shows that these plans have been highly successful only when they were backed by well-established firms with a secure market for their products—by firms not subject to large-scale seasonal or technological unemployment. Consequently, if GAW or related plans are to succeed, they must be negotiated individually by management and labor and must be adapted to the special conditions of a particular firm and industry. ■

current trends and outlook

Economics in Action

Ike's decision cheers business leaders, but significant adjustments take place while the economy as a whole marks time

WITH THE economy at the crossroads—no one knowing for certain whether the current boom will continue, ease off, or gather strength for a rebound—President Eisenhower's decision to seek a second term was received with great optimism by the business community.

While this development unquestionably generated confidence, **long-range business trends** are generally considered more important in determining the direction and magnitude of **economic currents.**

Certainly, it is not a lack of confidence that explains why the Federal Reserve Board's **index of industrial production** has been marking time for the past several months, close to the record level of 144 (1947-49=100) attained late last year. Nor does the reason for this apparent standstill have anything to do with economic stagnation.

Rather, a number of significant, mutually offsetting **adjustments** have been and are taking place without adversely affecting the economy as a whole. For example, the drop in **automobile production,** currently about 17 per cent below a year ago, and the still depressed rate of **residential construction** are being offset by rises in output in **mining, trucks, steel, machine tools** and **heavy construction.**

Perhaps the main reason for the present economic marking-time is that the uptrend in **consumer spending**—which was the principal factor underlying the 1955 boom—has leveled off. Although **personal income** is greater than it was a few months ago, largely due to recent **wage gains, total spending** is about the same. This is partly the result of increased payment of **installment debts** as well as **increased savings,** which rose from the annual rate of $16 billion in the third quarter of 1955 to more than $20 billion presently.

It now looks as if **savings** will increase still further, possibly to $24 billion before the year is over. And, since **prices** continue to advance, with rises coming in men's **clothing, furniture, coal** and **foods,** the consumer will likely exercise even greater restraint in future spending. However, this is extremely difficult to gauge. Wrong guesses on what consumers will do with their money have been responsible for many inaccurate **business forecasts.**

Nevertheless, the economy should be buoyed up by continuing rises in **inventory accumulation** and in **government expenditures.** Additionally, relaxed **mortgage credit policies** seem to be putting a floor under the decline in **residential housing** (which is not far behind the December annual rate of 1.2 million starts). And the spring boost in **car sales,** now underway, should call for a rise in **automobile production.** Consequently, any further easing off of over-all activity should be limited. ■

Bernhard Haurwitz

Chairman, Department of Meteorology and Oceanography, New York University

What Can Be Done About the Weather?

Q *Dr. Haurwitz, you probably aren't one of those people who believes that everybody complains about the weather but no one does anything about it. Essentially, what are you weather experts trying to do about the weather?*

A I suppose basically the research is aimed at finding out what makes the atmosphere behave the way it does. Once we know how the atmosphere behaves, we shall be in a better position to forecast what the weather will be—tomorrow, next week, next month, next season or year.

Q *What purpose is served by the weather balloons which have been so much in the news lately?*

A The balloons are used to determine distribution of weight, temperature and pressure in the upper atmosphere. There are two types of balloons. One type is meant to go up into the atmosphere and get information about the distribution of meteorological variables at one and the same spot. The other type is meant to drift. The balloons we have been hearing about are probably those meant to drift.

Q *How about the polar expeditions? How will our increased knowledge of polar conditions affect our understanding of weather?*

A The present polar expeditions are in preparation for the international geophysical year in 1957. The polar regions are, of course, uninhabited. Therefore, special attention must be paid to them. The north and south polar regions are of particular importance

because it is here that the lowest temperatures of the atmosphere occur. On the other hand, the atmosphere at the Equator is heated and receives energy. As a result, we have an exchange of air between the Poles and the Equator which in a sense controls the flow of the main air currents.

Q *As far as most people are concerned, however, the main interest is in short-range weather predictions. How accurate would you say is the weatherman in his ability to predict whether it will be rain or shine tomorrow?*

A It is a little difficult to answer that question because most of us are really interested in only one or two parts of weather forecast. Of course, whether it is going to be cold or warm, rainy or sunny, involves important meteorological phenomena. But the forecaster is also interested in whether the wind will blow from the north or south, what its rate of speed will be, and so on. If you want to check the accuracy of a forecast, you should consider all parts of the forecast. According to the records, U. S. Weather Bureau forecasts are about 85 per cent accurate.

Q *Is the weatherman becoming more accurate from year to year?*

A Well, thirty or forty years ago, when we had fewer observations, we were also interested in fewer aspects of the weather. For example, flying was in its infancy, so the weatherman did not have to make any forecasts about conditions in the upper atmosphere. Today, the scope of the weather forecast is very much larger. The weatherman gets more times at bat, so to speak, and consequently his average is probably not much higher than that of his counterpart of three decades ago.

Q *What are the prospects of improving the weather forecasting batting average in the near future?*

A The prospects look very good, and this is not only because of advances in meteorology. Thanks to the new high-speed electronic computers, it is now possible for us to apply what we know about fluids to problems involving the behavior of the atmosphere. The application of fluid dynamics to meteorological forecasting was, in principle, possible before we had electronic computers, but the process was not practical because it took too long a time to complete the com-

putations. Obviously, there isn't much point in trying to forecast tomorrow's weather if it takes us a year to figure it out.

Q *What about long-range weather changes? Is it possible to make weather forecasts for an extended period of time?*

A We can now make weather forecasts for about five days in advance. Such forecasts are issued by the United States Weather Bureau as a matter of routine. The Weather Bureau also issues monthly forecasts which it calls a monthly outlook. These are probably better than guesses, and anyone who follows them for a period of four or five years will be ahead of the game. But I would not rely on them too much if it were extremely important to me that I know *exactly* what the weather is going to be like four weeks from today.

Q *What stands in the way of more accurate long-range forecasts?*

A We do not yet really understand the general circulation of the atmosphere completely. We do not know enough about the interdependency of the various weather regions that lie between the Poles and the Equator. Of course, we are trying to rectify this situation. What we learn about the conditions at the Poles and in the Tropics will not be important to our forecasts of a four- or five-day period. Such short-range weather is not affected by the world-wide distribution of atmospheric conditions. But when it comes to monthly forecasts and longer ones, we have to study the atmosphere of the entire world. Unfortunately, we do not get sufficient data of this type even today.

Annual mean temperatures have shown an upward trend

Q *How detailed might we expect such forecasts to be?*

A The way things stand now, even if we should be able to collect world-wide data, it would not be possible to say that on June 25, 1957 there will be a thunderstorm over Manhattan. But we might very well be able to say that June 1957 will be much warmer than it usually is, or much colder and much more rainy. But even this much is not possible today.

Q *What about over-all climate changes? Some have said that our weather is getting warmer all the time. Is there any basis to such speculation?*

A There is very definite evidence that on the whole the annual mean temperatures of our winters have shown an upward trend. The trouble is that we do not really understand why the winters have been getting milder. We just do not know enough about the great cycles in weather to say definitely that we are entering an age of rising temperatures. A reverse temperature trend may very well be in the offing for the next twenty years. This is something about which I can only speculate.

Q *Has our knowledge of weather conditions reached a point where we can give reasonable advice to farmers and other interested parties about what to expect in the way of weather in the appreciable future?*

A Well, certainly I believe that there is good reason to regard seriously the five-day forecast and even the monthly forecast. But the thing becomes more difficult when we start talking about the next five, ten, or twenty years. The economic significance of such long-range forecasts cannot be determined by the meteorologist as yet. But what he can probably do is point out that conditions today and for the past five or ten years have been such that some changes should be made in the economic utilization of some natural resources.

Q *Dr. Haurwitz, how effective have been our attempts actually to change the weather? We have heard a great deal about cloud-seeding, for example. To what extent have we been able to create atmospheric conditions that would not normally exist?*

A We have only begun to explore these possibilities. What we have been able to establish definitely thus far is not too spectacular, although I think it is quite remarkable. Certain types of clouds, when they are seeded with dry ice or silver iodide, can be dissolved so that some precipitation will take place. However, everyone who is working in this field believes that cloud-seeding will be effective only in certain parts of clouds out of which it will probably rain in any case. Therefore, how much more precipitation we can get out of clouds by seeding methods can only be decided statistically. Presumably, if you seed a sufficiently large number of clouds and then compare this precipitation with the amount that comes out of unseeded clouds, then you can ascertain whether there is a truly significant difference. And whether there is such a significant difference is still debatable. But the possibilities are certainly important

enough to pursue the study of cloud-seeding techniques.

Q *Is there anything else that has been done or that could be done, on the basis of our present knowledge, to induce unnatural changes in the atmosphere?*

A The answer to that is certainly yes. You are familiar with the use of smudge pots to protect fruit orchards from unusual night frosts in the spring. This constitutes a control of conditions in the lower level of the atmosphere. As far as larger-scale changes of weather or climate are concerned, in principle this can also be done. For instance, if you put enough volcanic dust or any other kind of dust in the atmosphere in sufficient quantity, this would undoubtedly lead to a decrease in temperature because solar radiation would be cut off. I don't know why anyone would want to do that, and even if there were a good reason for it, it may not be economically feasible. I also imagine that it would be possible to melt off some of the glaciers if enough energy were applied. But, the question is whether you really want to do it. You would certainly get a rise in sea level, and this might mean that a large part of the real estate in New York might become useless. It certainly is possible, with what we know today, to make some significant changes in the weather. But whether such changes would be beneficial and whether they would be economically sound involve an entirely different set of questions.

Nature does not take sides

Q *Would it be possible for a potential enemy to try to induce an artificial flood, a drought or a drop in temperature in the United States? Are there military implications to the possibility of weather control?*

A I have serious doubts that such procedures would be economically feasible. I do not really imagine that a drought could be induced in the United States without seriously affecting the weather everywhere else. Even if something could be done to induce atmospheric changes which would cause a drought in the United States, I am certain that equally unpleasant changes might occur on the other side of the Northern Hemisphere. In other words, Nature does not take sides. And even if our state of knowledge reaches such pro-

portions that we could predict all of the caprices of Nature, I have the suspicion that the process would cost much more money then would the more conventional weapons of almost total destruction.

Q *Let us move on to more pleasant speculations. Do you feel that in the foreseeable future we might be able to condition the atmosphere to serve our biological preferences without relying on such mechanical agents as air conditioners?*

A It is conceivable that we could create for ourselves a year-round temperate climate. But I wonder, if we should be able to do something like that, whether we might also bring about other changes which might prove to be more distasteful than a humid day in summer. One would be well advised to consider such possibilities. All sorts of engineering techniques have been suggested, such as covering an entire city with a transparent material, with the enclosed atmosphere completely air conditioned. It would probably be cheaper to install air conditioners in every home, apartment and office building we have.

Q *Would you say that we might be healthier if we could live in more pleasant atmospheric surroundings?*

A If the meteorologists can help us to understand better how to take the weather, then certainly we might feel healthier.

Q *In other words, weather will become less and less something we just talk about and more and more something that we understand. And, on occasion, we might even be able to do something about it.*

A Well, I am certain that we are going to learn more and more about the weather. On a small scale, we shall probably be able to do something about it, but I cannot speculate about the large scale. I must admit that personally I really don't mind the weather, whichever way it is. I have a feeling that instead of trying to change it, we should know how to adapt ourselves to it and enjoy it. If we are ever really in a position to make large-scale changes, we might find ourselves confronted with consequences which we hadn't foreseen. Then we would have to change the weather right back to the way it was.

Q *Thank you, Prof. Haurwitz.* ■

you may want to know...

SOME self-employed persons who entered the Social Security program at the beginning of 1955 will reach 65 by mid-1956. But it may be wise for them to continue working until the end of the year. Reason: earnings of self-employed persons are figured on an annual basis. If a man retires in mid-1956, his earnings from the start of 1955 would be divided by 24 instead of the 18 months actually worked. Thus, his average income—and the Social Security based on it —would be lessened, perhaps resulting in a lesser payment than his income provides.

Kindergarten Kues

A NEW booklet, *Helping Children Get Along in School,* may be of interest to parents. The author, associated with the U. S. Office of Education, discusses the "first days" in the classroom, good study habits and how parents can help establish them and ways parents can help children get along with others. It is published by Science Research Associates, 57 West Grand Avenue, Chicago 10. Cost is 50 cents.

Hints on Heart Attacks

CALL the doctor at once if someone has a heart attack. This is one of six rules given by the American Heart Association. The others are:

Help the patient take the most comfortable position, probably halfway between lying and sitting. Do not carry or lift him. Loosen tight clothing. See that he does not become chilled, but do not induce sweating with too many blankets. And do *not* give stimulants such as whiskey or brandy.

Putting Zing in the Ring

IF YOU are going to be working in the basement for a while, set the phone on a dishpan. The sound of the ring will be in-

creased many times so that you will be able to hear it.

Color-Kit for Cars

A KIT to help you retouch chips and scratches on your car finish is now on the market. It sells for $1, complete with a small bottle of paint to match your car, polishing paste, mixing paddles, brushes and explicit instructions.

D-Day Doldrums

APRIL 16 is the big tax day. Individuals file final 1955 returns and pay the balance of tax. Self-employed persons pay Social Security tax for 1955. And farmers who filed a 1955 tax declaration by January 16, 1956 file a final return and pay the balance of 1955 tax.

Gramps Launches a Balloon

GREAT-granddad's old diary may be of value to the Weather Bureau—for science not gossip. By learning that he was snowed in on Nov. 10, 1850 or a long rainy spell delayed planting in 1855, the Bureau hopes to chart more accurately long-range weather trends. So if you have any old journals, letters or diaries predated 1870, when daily records began, you might lend them to the Weather Bureau.

Slippery Problem

YOU can make glass-cutting easier and more accurate if you use a dampened yardstick as a guide. The damp surface will keep the yardstick from slipping as you draw the cutter along its edge.

Additional Audits

CHANCES of your federal income-tax return being thoroughly audited are much greater this year than before. The Internal Revenue Service has been adding agents to help out on the job. Moral: make out your return from adequate records.

Nondeductible Trips

AUTOMOBILE expenses you incur in commuting between your home and job are nondeductible personal expenses. This holds even if the car also transports your work tools, the Revenue Service ruled.—A. G.

THE PRESIDENTIAL IMAGE

by David A. Shannon

What do most people see as the characteristics of Presidential timber?

"On my arrival in the United States," wrote the brilliant French political observer Alexis de Tocqueville in 1835, "I was surprised to find so much distinguished talent among the citizens and so little among the heads of government."

A harsh judgment? Perhaps. But not a unique one. Late in the nineteenth century another distinguished foreign observer, the Englishman James Bryce, wrote of most of the men who had occupied the U. S. Presidency, "The only thing remarkable about them is that being so commonplace they should have climbed so high." Several other political scientists, both American and European, have made similar observations. Most Presidents, these critics believe, have performed creditably—as well, generally, as executive officers of nations with more rational methods of selecting political leadership—but the ablest men of the age do not become President.

If we accept these comments as true—and we must grant there are many mediocrities in the list of American Presidents following Andrew Jackson—why are they true? The American Presidency is one of the most important offices in the world. Why, then, have not Americans always chosen absolutely top men for this extremely critical post?

The answer lies in the nature of the American political process and in the public's image of the

ideal President. The electorate only selects from among the candidates offered by the parties, it is true, but delegates at nominating conventions base their choice largely on what they think the electorate wants. In other words, the image the people have of the Presidency—what they conceive to be the necessary qualifications and characteristics of a good President and what they expect from him—determines the quality of the man they select.

What is this image of the Presidency? What is the mental picture Americans have of its occupant?

Apparently, physical appearance is not a part of the image because our Presidents have varied tremendously in physique. It used to be said snidely that Harding became President because he looked like one and that Paul V. McNutt aspired to the office because he thought he looked like one, but there is no such thing as a Presidential look. Some Presidents have been unusually tall like Washington and Lincoln, and some have been unusually short like Van Buren. A few have been handsome as was Harding, and a few have been homely. (The prestige of the Presidency can even make homeliness attractive. The ungainly, craggy Lincoln, described during his life as a "baboon," became in the public's eye a physically attractive figure, and today the adjective "Lincolnesque" is complimentary.) Jackson and Wilson were lean and hungry-looking; Taft, who looked like an overaged and overinflated cherub, required a special outsized bathtub.

Nor does physical fitness seem to be a part of the Presidential image. The American public expects the President to be healthy enough to function efficiently, but beyond that it makes no conditions. Jackson suffered from wheezy bad health during his White House years (although he lived for eight years after he left office), and Franklin D. Roosevelt was badly crippled. At the other extreme was Theodore Roosevelt, whose athletic enthusiasm led him to take boxing lessons while he was President and to conduct press interviews while jogging through Washington's parks. But all three men were very popular Presidents. The public is uneasy about a candidate so old he may not live out his term, but if he is reasonably healthy he is accepted.

Although there is no special "look" to the Presidential image, there is an image nevertheless.

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Despite some obvious sharp differences in opinion, if all our Presidents should be gathered into some kind of political Valhalla they would form a rather homogeneous community.

ALL Presidents and all but one of the major party candidates have been Protestants. We cannot say definitely that Alfred E. Smith, the lone exception, suffered defeat in 1928 because he was a Catholic since there were other factors in Hoover's victory. But it is clear that Smith's Catholicism handicapped his campaign. In rural America, particularly in the South, thousands of normally Democratic votes went to Hoover only because Smith was Catholic. Nor has either party ever nominated a Jew for the Presidency, or even seriously considered the possibility.

The defeat of Al Smith, who was born in New York City, illustrates two other aspects of the public's image of the President: it sees the President as a small-town boy of "old American stock." Although approximately 60 per cent of the American people today live in cities of more than 50,000 population, they persist in the Jeffersonian distrust of the city man. The traditional villain of the old melodramas was a city slicker, and the stereotype is still with us in politics. Political candidates make capital of humble origins if those origins are small-town or rural, but the electorate distrusts the man who grew up in a city slum.

This antiurban complex is intimately connected with American prejudice against the immigrant from southern and eastern Europe. Most of our presidential candidates have come from families originally from Great Britain (exclusive of Ireland), and a few have been of Dutch or German background. Furthermore, their families have been in the United States for several generations.

The fact that Smith was a second-generation Irishman undoubtedly hurt him at the polls, and it is likely that Wendell Willkie was also under some political handicap because he was a third-generation German. However, the very fact that Smith and Willkie could be nominated by a major party indicates a slow political assimilation of immigrant groups. The nomination of an Irishman in the 1840s or of a German in the 1860s would have been inconceivable. The nomination of someone of Scandinavian background would be politically possible today, and the day will probably come when someone with an Italian or Polish

name will receive the nomination. Both groups have begun to come of age politically within the past generation, and today both houses of Congress have members whose forefathers came from Italy or Poland.

THERE are other obvious aspects of the Presidential image. For one thing, the electorate expects its President to have been a success at his chosen work before he moves to the White House. Most Presidents and losing candidates were successful in politics either as Governors or Senators before their nomination. Taylor, Grant and Eisenhower moved directly from military careers, and a few candidates came from law practice or the judiciary. But whatever their background, they all had demonstrated by their successful careers that they were "Presidential timber."

While they must have been successful in their previous careers, they must not be superior in manner. They must have "the common touch." The public likes to think of its President as being of the people but better, considerably better, than the average man.

Most of all, the public sees the President as a man with conventional ideas and a conventional personal life. One who is known to be "off-beat" in any respect does not fit the Presidential image. In the very nature of things, Presidential candidates of major parties must reflect widely held social ideas. The voters in a political democracy naturally reject those whose views on essential issues differ substantially from their own. The voters also reject the man who has led an unconventional personal life. Grover Cleveland could overcome the handicap of fathering an illegitimate child only because his opponent in 1884, James G. Blaine, had been identified with public corruption. A majority of the voters figured, logically enough, that Blaine, whose homelife had been above suspicion but whose public life was tainted, should stay at home, and that Cleveland, with whom the situations were reversed, should occupy the White House.

HISTORICALLY, the American people have rejected the idea of elevating a divorced man to the Presidency, but, as divorce has become more widespread, that part of the image has faded. At least, Adlai Stevenson's divorce does not seem to have been an important factor in his 1952 defeat. Presidential aspirants must realize that even such personal matters as taste in clothes will effect the way they fit the image.

Dignified conservatism in dress is the rule. Herbert Hoover suffered with high stiff collars years after most men discarded them and, contrariwise, Harry Truman was criticized for the loud sport shirts he wore on vacations.

One final point: the public expects the President to be independent of "big business" and "big labor." Neither major party has nominated a labor man, and the candidates associated with "big business" have operated under handicaps. John W. Davis, Democratic candidate in 1924, had had a varied career as a small-town lawyer, Congressman, Solicitor General under Wilson, and Ambassador to England, but his brief career as a member of a law firm that served as counsel for J. P. Morgan fatally stamped Davis as a Wall Street man. Willkie—whom the acid-tongued Harold Ickes called a "simple barefoot Wall Street lawyer" when the Republicans emphasized Willkie's homespun Hoosier qualities—similarly suffered from his business connections.

THE effort to make the image of the candidate conform to the image of the Presidency is the essence of Presidential politics. Sometimes the actual person and the public's picture of him may be two quite different things. The Whigs performed a masterpiece of image manipulation in 1840 when they convinced enough voters that the Democrat Martin Van Buren looked and acted like a Whig and that their candidate, William Henry Harrison, looked and acted like a Jacksonian Democrat.

The campaign antics of the Whigs in 1840 also serve to illustrate that the image of the Presidency has changed somewhat. The Whigs successfully painted a picture of Harrison as a variant of Davy Crockett, complete with coonskin cap and hard cider, when actually he was a relatively civilized old soldier. Today both major parties might employ more drastic means to promote their candidates, but no longer would they try to produce a frontiersman impression because it is no longer part of the Presidential image.

WILL the Presidential image change further? Surely it will. But it is altogether likely that a Presidential image will persist. The gray flannel suit has replaced the buckskin jacket and will in time be replaced by something else. In other words, standards of conformity change, but conformity remains; the image changes, but an image persists. And daring indeed is the politician who would experiment with the Presidential image. ■

New forecasting techniques are overcoming some of the difficulties of foretelling how people will act under varying conditions

Predicting People's Behavior

by Paul B. Sheatsley

Is it possible to predict in advance how human beings will behave in any given situation? Maybe not, but organized efforts to do just that are becoming increasingly common. The reason, of course, is that most Americans have a large measure of choice in their behavior, and the nature of their choices can spell success or failure to those whose interests or livelihoods depend upon public support.

Faced with this need to predict correctly the public's behavior, businessmen and others have turned increasingly to psychology, sociology and the other "behavior sciences," and more particularly to the tool of survey research which has emerged from these sciences.

The basic concept of survey research is a simple one: If you want to know how people act, go out and ask them. Obviously, you can't ask all of them, but a few hundred or a few thousand may be enough, provided they represent an accurate cross-section of the group you are concerned with.

But survey research is based upon a number of assumptions which are open to serious question. These major assumptions are (1) that people are capable of predicting their own behavior; and (2) that they are willing to speak truthfully to the investigator.

These assumptions do not always hold. Some people, to maintain their own privacy or self-esteem, will refuse to answer the interviewer's questions, or will give evasive or untruthful answers. Double-feature movies, for example, have been roundly condemned by the public in practically every survey ever made, but let a theater alter its double-feature policy and attendance promptly drops.

Even when people are willing to give honest answers, they are frequently not able to predict just

how they will act in some future situation. People often behave on impulse. A product that arouses little interest in a survey can often be sold in large quantities if it is displayed at a supermarket check-out counter or other convenient location.

Sometimes, too, people are in honest doubt about a future course of action. They haven't made up their minds and are still open to suggestion. It is generally conceded that it was this kind of "undecided" vote which upset the forecasts of the 1948 pre-election polls. The doubtful group ultimately voted for Truman in sufficient numbers to overcome the lead shown by Dewey in the polls.

In predicting their future behavior, people may fail to take into full account the force of outside pressures which may be brought to bear on them. In the privacy of a survey interview, people are likely to discount outside influences. Thus, a group of workers may say they would refuse to work alongside a Negro employee. But let a Negro be hired, let the men see that he is accepted by many in the group, let them actually consider the disadvantages of striking or quitting, and the predicted action may not occur at all.

People also have trouble predicting their behavior when the hypothesized situation is unfamiliar to them. This is a frequent difficulty of program research in the broadcasting industry. Ask people what kind of television programs they prefer, and they name the types they are familiar with. The brave soul who put on the first radio quiz show probably did not do so in response to the public's wishes as expressed in a survey. But once people became familiar with quiz shows, they demanded more of them.

Finally, human motivations are sometimes unconscious or suppressed. A person may sincerely deny that he will ever behave in a certain way, but for reasons unknown even to himself, he may behave differently when the time comes. Dissatisfied workers, for example, may explain their dissatisfaction in terms of the low wages they receive; but in many instances the grievances might remain even if higher wages were granted. The true cause of their unhappiness may lie much deeper —in some subtle form of discrimination, perhaps, or a failure to receive the recognition they feel is their due—and they could never voice these factors to an inter-

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As eastern representative of the National Opinion Research Center, Paul B. Sheatsley is well-acquainted with the problems that are confronted in the making of sound observations from public-survey data.

viewer since they are not consciously aware of them.

Even assuming that people are able to predict their behavior and are willing to do so, much can happen after the survey results are reported. If new considerations have intervened, people will naturally act differently to conform to the new situation.

There is still another problem confronting the survey researcher. In a survey, each person is interviewed once and has one vote. But the future behavior of the group can hardly be predicted simply by adding up the votes and giving each vote equal weight. Some people will have strong feelings and will show every indication of carrying out their intentions, while others may answer in lukewarm fashion. Thus, large majorities may vote approval of a particular product or policy, but in such an apathetic manner that the expected behavior fails to manifest itself.

Besides, all people do not have equal power and influence. One could go far astray in predicting the future action of a labor union by surveying the membership, because the leaders of the union may adopt a different course of action.

It would seem, therefore, that the survey analyst can succeed only if he has a great deal of luck on his side. But the researcher himself is far from helpless. He has learned, first, that refusals to be interviewed and deliberate attempts to mislead the interviewer are not common. (Indeed, the danger is often one of overcooperativeness, since many people try to give answers which will please the interviewer.)

THE dangers of getting the acceptable response rather than the honest one are overcome by a variety of devices. Those who pretest the survey questionnaire become adept at spotting possibly evasive responses, and recommend measures for discouraging them. Often there are tricks of question-wording to make the less acceptable response more acceptable. Thus, instead of asking, "Do you intend to vote in the coming election?" the question might read, "Is there a chance that something might come up to keep you from voting?"

Of course, no one question, no matter how skillfully or precisely phrased, provides an easy guide to prediction. The researcher must endeavor to cover in his questioning all of the more likely choices of behavior in the situation. In attempting to predict voting behavior, for example, he would not just ask for a simple preference between the candidates. He would also want to find out the person's stand on the various issues of the campaign; his past

voting behavior; the intensity of his interest in the election, and so on.

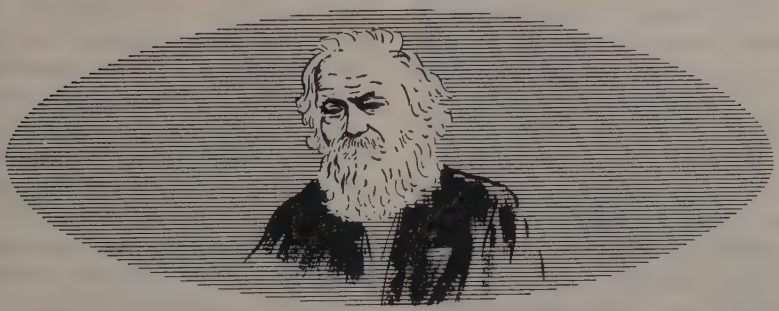
Whenever possible, the researcher prefers to conduct what he calls a "controlled experiment." This involves interviewing two comparable groups of people, and then exposing one of them to a particular product or idea. The two groups are then reinterviewed, and any changes in the first group not found in the second are attributed to the new factor. Thus, a prediction of the effectiveness of a particular campaign appeal could be reliably made, if those exposed to the new appeal altered their attitudes while the other group did not.

When controlled experiments are not possible, the researcher must make the hypothetical situation as real as possible. Rather than ask a housewife what she thinks of a new product, for instance, he will prefer to leave a sample in her home for a week and then call back to see what use she has made of it. Rather than describe a proposed law in general terms, he will pose several possible effects it might have on the person, and judge his reaction to those possibilities.

It would be a sad day if individuals ever became so predictable that forecasts were never wrong. But a better understanding of human motivations and behavior is essential to the entire community—the businessman, the government, the civic group, the employer, even the individual himself. Given sufficient time, funds and personnel, the survey researchers could probably predict human behavior at least as consistently as the weatherman predicts rain. But even as matters stand, the "scientific survey," when properly conducted, has proved itself far superior to the guesses and hunches of an earlier day. ■

Answers to True-False Quiz

(1) False *(see page 59)*
(2) False *(see page 11)*
(3) True *(see page 16)*
(4) True *(see page 15)*
(5) True *(see page 47)*
(6) True *(see page 34)*
(7) False *(see page 42)*
(8) True *(see page 21)*
(9) True *(see page 55)*
(10) True *(see page 30)*
(11) False *(see page 6)*
(12) True *(see page 51)*



Marx: Philosopher of Revolt

Drawing largely on Classical economic doctrines, Karl Marx evolved a theory which he called "scientific" socialism

NO ECONOMIST has been more successful in arousing our passions and stirring our imaginations than Karl Heinrich Marx, the founder and patron saint of "scientific" socialism.

The son of an upper middle class family, Marx was born in Trier, a small provincial town in western Germany. A brilliant scholar, he began by studying law at the age of seventeen but later switched to literature and philosophy. He became increasingly involved in radical activities of various sorts and was finally forced to flee, first to Paris and later to Brussels, where he met his lifelong friend and collaborator, Friedrich Engels. He returned to Germany in order to participate in the revolution of 1848 but was again expelled when the revolution collapsed. This time he sought refuge in London, where he spent the remaining thirty years of his life. It was here that he wrote the works on which his fame as an economist chiefly rests: *The Critique of Political Economy* and the four volumes of *Capital.*

What is true of most economists is especially true of Marx; it is impossible to understand fully his economic ideas without understanding the social philosophy of which it is an integral part. As a student of the German idealist philosopher, Hegel, Marx accepted Hegel's idea that history evolves in a certain predetermined *dialectical* pattern and that Man can rationally understand this pat-

tern. No particular society can last forever, each is but one link in the chain of social evolution breeding within it the seeds of its own destruction and finally giving way to new and "higher" forms of social organization.

However, as a materialist—that is, as one who holds that the facts of Nature are a sufficient explanation of the universe—Marx, unlike Hegel, believed that history can be explained in terms of material changes. And the key factor in historical evolution, he felt, was to be found in the way people make a living. Their *mode* of production depends on the prevailing *means* of production—the land, raw materials, factories, etc.—needed to create wealth. The place and significance in society of different classes is determined by the relationship of a particular class to the prevailing means of production of the time.

According to this dialectical method of reasoning, capitalism's downfall would be the result of a contradiction between the changing mode of production and the prevailing system of ownership. Under capitalism, said Marx, production is becoming increasingly dependent upon great pools of labor and capital, while the means of production continue to be owned individually. As a result, we have two classes: the capitalists who own the prevailing means of production, and the workers who own nothing but their own labor power. The interests of these classes are incompatible, and the conflict between them must eventually lead to the downfall of capitalism. Note that it is his *philosophy* which tells him that there is a conflict in capitalist society which must inevitably destroy it; his *economics* only tells him how this is to come about.

MARX'S economics was built on Classicism. Like Ricardo, he believed that the value of commodities is determined by the quantity of labor that goes into their production. Unlike Ricardo, however, Marx did not hold that this quantity of labor can be measured by the time spent by a particular laborer on a particular commodity. Rather, it is socially necessary labor time—that is, "the labor time necessary to produce [a commodity] with the given normal conditions of social production and the social average degree of skill and intensity of labor"—that determines value. Who is to determine what is "socially necessary labor time" Marx never did explain successfully in his vo-

This is the thirteenth article of a series in CHALLENGE dealing with the economic development of Man.

luminous economic writings.

There was another, even more basic, objection to the labor theory of value, one that Smith and Ricardo had tried in vain to explain. If all value is created solely by labor, and if all commodities are exchanged at roughly their value, then how can we account for profit? Marx's "solution" to the problem was his well-known doctrine of *surplus* value. Let us assume that it takes five hours of labor to provide the worker (and his family) with his means of subsistence, while he actually works, in Marx's day, twelve hours. The difference of seven hours' labor time then constitutes surplus value—the characteristic form of exploitation in capitalist society. The basic assumptions behind this line of reasoning are (1) that labor is always paid subsistence wages, and (2) that the capitalist contributes nothing to the value of production. The first assumption was probably incorrect in Marx's time and is certainly incorrect today, when workers in the more advanced capitalist nations have approached a middle class standard of life. The second assumption is rejected by most Western economists who insist that the capitalist makes possible industrial production by coordinating land, labor and capital.

For Marx, however, it is this exploitation of labor by means of surplus value which must lead to the ultimate downfall of capitalism. Since the wages of labor are always less than the value of what they produce, workers cannot buy back the value of their product. As a result of this persistent gap between what is produced and what can be consumed, capitalist society is subjected to periodic crises. Since production under capitalism is competitive, moreover, such crises are bound to become progressively more severe, for there is no planning to establish an equilibrium between production and consumption.

According to Marx, the mass of surplus value "stolen" from the working class keeps on getting bigger and bigger. As more and more machinery is introduced, moreover, capital becomes concentrated in fewer and fewer hands, since the competitive struggle reduces the number of producers by eliminating the least efficient. The lot of the workers, on the other hand, becomes increasingly miserable, for the introduction of new machinery gives rise to mass unemployment and constant reductions in wage rates. This tendency for the rich to get fewer and richer and the poor to get poorer and become larger in number aggravates the class struggle and will lead to

the final seizure of power by the proletariat which will now have "nothing to lose but its chains." The dictatorship of the proletariat will, in turn, give way to a perfect communist society where the state will "wither away" and society will be organized on the principle of "from each according to his ability to each according to his need." How the state can "wither away" after appropriating all the productive property of society is one of those things Marx never does manage to explain satisfactorily.

READING Marx today, it becomes clear that history has not dealt too kindly with his predictions. While it is true that industry has become more concentrated, this has not resulted in the impoverishment of labor or in the enrichment of capitalists. On the contrary, it is in the most heavily industrialized and most capitalistic (i.e. least controlled) nation in the world that the worker's standard of living has risen most remarkably. And in no industrialized capitalized country today does the average worker have to live on subsistence wages; in all capitalist countries, in fact, the trend has been in the opposite direction. While it is true that we still have some of the crises Marx predicted, there is no evidence that depressions are peculiar to capitalism. Finally, there is every indication that, as capitalism evolves, class conflict becomes less, not more, bitter. In fact, the average worker in the United States, according to public opinion polls, thinks of himself not as a worker but as a member of that middle class which Marx thought would "inevitably" disappear.

Yet, Marx did make several significant contributions to economics. In the first place, he drew the attention of economists to the phenomenon of industrial crises, a problem that is still with us today. Even more important, however, is the fact that he challenged the existing order of things, shaking the statesmen and economists of his time out of the complacency into which they had fallen. Perhaps his most important contribution to economics is just this: that by criticizing the prevailing concepts of economists, he forced them to re-examine these concepts. It is this re-examination of capitalist economics, so different from what Marx imagined, that will occupy us in the following chapters. ■

NEXT MONTH: Late nineteenth and early twentieth century conditions lead Marx's followers to defend, modify or reject portions of his theories

CONTROVERSY OVER VARIABLE ANNUITIES

The insurance industry is split over whether it is sound to issue variable annuity policies to protect purchasing power

by Leonard E. Morrissey

THE PUBLIC has a personal stake in the sharp debate that now splits the insurance industry—the debate over the variable annuity. This retirement plan based on common stocks is supported by Prudential Insurance Company of America and opposed by Metropolitan Life Insurance Company. Other companies which have been watching closely from the sidelines are beginning to take up positions.

The two distinguishing characteristics of the variable annuity are: investment of the policyholder's premiums in common stocks and payment of retirement benefits in accordance with changes in the market prices of these stocks.

The premiums paid by the holder of a variable annuity contract are used to purchase *units* in a common stock fund. At retirement, the policyholder will collect on the total number of units he has accumulated. Whereas the conventional annuity provides a *fixed-dollar* payment, the variable annuity provides a *fixed-unit* payment. The number of units paid each period never changes, but the dollar payments will fluctuate according to changes in the value of a unit.

At the moment, insurance companies are generally prohibited from issuing variable annuities by state laws, but legislation currently pending in New Jersey seeks to lift these prohibitions.

The backers of this new retirement program contend that it will give the public some protection against inflation because stock prices usually will rise along with the general price level. Opponents, including some members of the insurance industry as well as mutual fund and investment banking groups,

challenge the soundness of the plan and its workability.

Certainly, the variable annuity is a significant break with tradition. Up to now, the annuitant has been able to count on a fixed-dollar income. He won't be able to do so under the variable annuity.

By itself, this is not a very serious objection, however. Investments and payments linked to stocks involve a risk, but this is true of any insurance or investment program. The *fixed-dollar* annuity involves a purchasing power risk—the policyholder gets a fixed number of dollars, but the amount of goods the dollars buy may vary. The major risk under the variable annuity is the risk of a depreciation in the value of common stocks. But this risk is directly affected by the length of the pay-in and pay-out periods, and if the total time exceeds twenty years, the risk is minimized.

IDEALLY, the buyer of a variable annuity should pay for it at regular intervals for a number of years, and at retirement he should elect an option to provide a monthly income for life. Then he will never be vulnerable to stock prices at any one time. *That is, he will not make a substantial investment when stock prices are very high or a large withdrawal when they are relatively low.*

Much of the support for the variable annuity is based on a Teachers Insurance and Annuity Association (TIAA) study. As a result of this study, TIAA introduced the College Retirement Equities Fund in 1952. Under this plan at least one-half of the monthly premium must go to TIAA for the purchase of a fixed-dollar annuity; the rest may be invested in the equities fund. According to TIAA, a participant in this "fifty-fifty" arrangement would have consistently received substantially more than what a wholly fixed dollar annuity, purchased with the same premiums, would have provided. The one year since 1900 in which this rule would not hold was 1932.

Last August the Variable Annuity Life Insurance Company, licensed in Washington, D. C., became the first company offering variable annuities to the public. Whether variable annuities will be issued outside of Washington appears contingent upon what happens in Trenton, N. J., where legislation has been introduced to enable Prudential to issue variable annuities. Ac-

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ceptance of Prudential's proposals would undoubtedly open the door in other states.

A number of compelling arguments have been presented for passage of this legislation:

First, the variable annuity should lead to greater public participation in the benefits of a growing economy.

Second, it is generally conceded that further inflation is likely, increasing the need for protection against a fall in the dollar's purchasing power.

Third, many larger corporations have established trusteed pension plans which authorize the trustee to invest in common stocks. Under present rules there is no effective way for insurance companies to compete for this pension business.

Fourth, the sale of individual annuities has dropped in recent years. In part, this reflects the growth of company pension plans and expansion of the Social Security program. But, in addition, the fixed annuity has become less attractive as a means of providing a retirement income.

Finally, if the variable annuity is going to be offered to the public by someone, why not by life insurance companies?

Within the insurance industry, opponents of variable annuities cite several objections:

- The life insurance industry has established an unimpeachable record for meeting its obligations, and any other basis would lead to confusion and loss of confidence. One industry leader stated, "I don't want to receive letters from policyholders asking me why they received only $80.00 this month when it was $100.00 last month."
- The industry cannot sell fixed-dollar contracts with one hand and variable contracts with the other, since successful sale of the one would necessitate pointing out to the buyer some of the weaknesses of the other.
- The insurance industry is regulated by the various states. Fear has been expressed that large-scale purchases of common stocks by life insurance companies would open the door to federal regulation.
- Life insurance companies, as holders of large blocks of common stocks, might be regarded as dominating many important corporations—which they cannot do through bond ownership.

BUT the sharpest opposition to Prudential's proposal has come from the securities industry. The investment bankers have seen a substantial share of their business disappear as the result of the direct placement of bonds by borrowers with life insurance

companies. The possibility that many future stock issues might not require underwriting if insurance companies were ready buyers is a chilling thought to them.

However, the mutual funds would probably be the first to feel insurance company competition. A good part of the rapid growth in open-end mutual fund shareholder accounts—from 500,000 at the close of 1945 to 2,000,000 by the end of 1955—is probably attributable to buyers planning for retirement. This growth is threatened by the variable annuity. Under present tax regulations, the holder of a variable annuity contract has no current tax liability, while the owner of mutual fund shares must declare his annual dividends and capital gains. This tax advantage, and the guarantee that benefits cannot be outlived, would tend to divert savings from mutual funds into variable annuities.

THE possibility of widespread adoption of the variable annuity by life insurance companies raises another important question. If insurance companies increase their total purchases of common stocks, is there a sufficient supply of high grade equities to meet the potential demand?

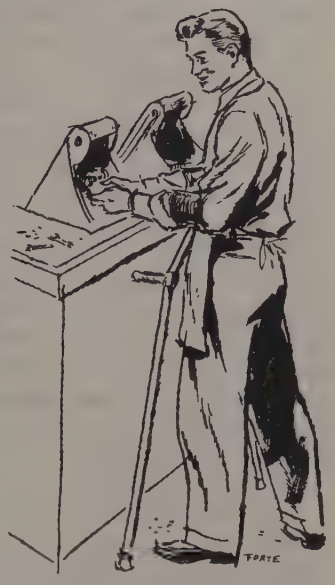
Prudential's economists feel, that corporate growth will require sufficient new stock issues to avert a shortage of high grade equities. A similar view was expressed by G. Keith Funston, president of the New York Stock Exchange, last June. He estimated that corporations will require 160 billion dollars of outside financing in the next ten years. If one-fourth (the ratio since 1945) of this money is raised through the sale of equities, we would have a demand for 40 billion dollars. Funston contended that a more reasonable ratio of debt and equity in raising new money would be a fifty-fifty split. Should this materialize, the demand for new equity money would mount to 80 billion dollars in the next ten years.

The variable annuity is a new venture which breaks sharply with the well-established fixed-dollar tradition of the life insurance industry. Its future effect on both the policyholder and the life insurance industry may be substantial. To the policyholder willing to take a measure of risk, it offers the hope of higher retirement income. To the company, the variable annuity promises a new opportunity for growth, and the possibility of greater service to the public. ■

Paradoxically, modern medicine is increasing the number of physically handicapped, but rehabilitation facilities are on the rise

New Hope for The Handicapped

by Howard Rusk and Eugene J. Taylor



THERE are many reasons for the increasing interest within the last decade in rehabilitating the physically handicapped. Technical advances in rehabilitation during World War II and the excellent experience of many employers with disabled workers during the wartime manpower shortage have contributed greatly to this development. But the primary stimulus has come from the substantial increase in the number of disabled persons in our population.

At first glance it seems paradoxical that with increased technical progress and great medical advances, factors which should decrease the number of handicapped, we nevertheless have more disabled persons in our population than ever before. But the paradox disappears when we realize that although thousands of Americans have been saved by progress in medicine, they have not all come out unscathed. Many lived on only to be confronted with a serious disability. The number of physically handicapped has grown inmensely and will continue to grow as our arsenal of knowledge expands—the social price, at least for the present, of medical advance.

Two thousand years ago the average length of life was twenty-five years; at the turn of the century it was forty-nine; today in the most industrially advanced countries it is approaching the legendary three-score-and-ten.

The saving of human life has

been of course a traditional and cherished social goal, but for hundreds of years it was largely a matter of saving individual patients. The twentieth century has brought a change in the character of this whole problem. With the expansion of research into the communicable diseases, with the production of vaccines, with the establishment of public health control measures, with the development of the "wonder drugs" which are available to practicing physicians everywhere, and other control and treatment measures, the life-saving functions of medicine have assumed mass proportions.

But in medicine, as in everything, the solution of certain problems inevitably gives rise to new problems. So we are now confronted with the simple fact that large-scale success in the saving of lives has produced a population with a high incidence of chronic disability.

There are today an estimated 28 million Americans suffering from some type of chronic illness, although not all of these are in need of, or would benefit from, rehabilitation services. But two million among them do need rehabilitation to become employable or to increase their employment potentials. Yet, another 250,000 persons, newly disabled from accident and disease, are added to their ranks each year. Among the nonworking population are additional hundreds of thousands of physically handicapped older persons and children of school and preschool age.

The picture is not altogether gloomy, for if there are more handicapped today than ever before, prospects for their rehabilitation into useful, productive lives are the brightest in our history.

The number of rehabilitation centers is now well over one hundred, which compares favorably with the handful of such facilities available before World War II. Besides, more and more hospitals are making rehabilitation an integral part of their hospital services. The number of sheltered workshops for persons so severely handicapped physically, emotionally, mentally and socially that they cannot find employment in competitive industry has also had a greatly needed increase.

The greatest bottleneck in a more rapid development of such services is the acute shortage of physicians trained in rehabilita-

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tion, physical and occupational therapists, social workers, nurses, prosthetic technicians, speech and hearing therapists and other rehabilitation workers. The supply of such personnel has more than doubled in the past decade, but the demand for their services has increased even more rapidly.

THE Vocational Rehabilitation Act of 1954 has been a great boon to all aspects of rehabilitation activity. By greatly increasing federal and state appropriations, the Act hopes to achieve an annual rehabilitation rate of 200,000 persons by 1959. Before passage of the bill, funds allowed for the annual rehabilitation into employment of only 60,000 persons, despite studies showing that the federal government recoups on income taxes alone ten dollars for each dollar invested in such services.

Governmental efforts in the field of rehabilitation have been augmented by voluntary organizations such as the National Foundation for Infantile Paralysis, the National Society for Crippled Children and Adults, the United Cerebral Palsy Association, the National Tuberculosis Association and the Goodwill Industries. These organizations have increased research, professional education and direct services and have made the public far more aware of the needs of the disabled and of what can be done through organized rehabilitation services.

A slow but significant change of attitude among employers toward hiring handicapped workers has paralleled this work. While a number of industrial organizations, such as International Business Machines, General Motors, Ford Motor Company and Caterpillar Tractor traditionally employed physically handicapped workers, it was not until the World War II manpower shortage that large numbers of disabled workers found a welcome mat on industry's doorstep.

UNFORTUNATELY, when military production declined with the end of the war, many of the handicapped workers, having been the last hired, were the first to be discharged. Even so, a number of major concerns, happy with their first large-scale employment of disabled workers, incorporated the employment of physically handicapped workers into their general personnel policies. Employers were particularly impressed with the results of comprehensive studies which showed that properly placed disabled workers equaled or exceeded their so-called able-bodied fellow workers in production, safety, time-on-the-job and labor turnover.

To demonstrate to more employers that "hiring the handicapped is good business," in 1945 the federal government started a President's Committee on Employment of the Handicapped. The program is now organized at state and community levels as a year-round effort to interpret to employers, labor organizations and community groups that "ability counts, not disability."

Of course, return to employment is not the only valid goal of rehabilitation, nor is it always a possible one. We have several million chronically disabled persons whose age, extent of disability or personal desire preclude a return to employment—and the numbers of such persons will increase as Man's life span is extended. In 1900, 4 per cent of the population were more than 65 years old; in 1950, the same group accounted for 8 per cent. By 1975, 16 per cent or 29 million Americans in our population will probably have reached what is now the normal retirement age.

Although chronic disability strikes all ages, upper age brackets are its particular targets. Allowed to become unnecessarily dependent, these patients absorb the services of a vast score of health personnel who could be freed for other essential work.

Long-term or chronic patients fall into two categories. One group is continually in need of the same sort of therapeutic services required by short-term patients, or those with acute illnesses. The second group is composed of persons with physical disabilities which do not need continuing diagnostic and therapeutic services but only occasional medical attention. A current study financed by the New York Foundation at Goldwater Memorial Hospital indicates that of ninety-five unselected cases of persons occupying beds in municipal hospitals, only seven were felt to be in need of continued hospitalization, and of these, two were considered doubtful.

In other words, it is possible that many long-term custodial cases in New York hospitals could be transferred to nonhospital facilities. Not only would there be financial savings to the city, but more important, the patients would be able to lead more satisfying lives than is possible in a hospital. They particularly need the satisfaction and dignity which comes only from some type of purposeful activity. We must come to understand, as individuals, as communities and as a nation, that the neglect of disability is more costly and less humane than an aggressive program of rehabilitation which restores people to lives of productivity and usefulness. ■

Challenge Quiz

HOW WELL can you do with this true-false quiz? Test your ability to increase your knowledge through reading. Ten correct answers is Excellent; 9, Good; 8, Average. If you do the quiz *before* reading the articles, 6 correct answers is Good. Answers on page 50.

(1) Because of medical progress, there are fewer disabled persons in the U. S. than ever before.

True ☐ False ☐

(2) Most workers aspire to become independent businessmen.

True ☐ False ☐

(3) As the trend toward big business continues, there will be more long-range planning and thus greater economic stability.

True ☐ False ☐

(4) Potato growers have lost much of their domestic market due to the American emphasis on slim feminine figures.

True ☐ False ☐

(5) Surveys often are invalid because they erroneously assume that people can correctly predict their own behavior.

True ☐ False ☐

(6) On a national annual average, the U. S. Weather Bureau forecasts the weather correctly 80 per cent of the time.

True ☐ False ☐

(7) U. S. Presidents are usually drawn from the ablest and most outstanding men of their age.

True ☐ False ☐

(8) The South produces three times more cotton textiles than New England.

True ☐ False ☐

(9) If variable annuities are introduced as part of insurance retirement plans, benefits will be paid according to changes in stock market prices.

True ☐ False ☐

(10) Plans similar to the recent GAW have been in operation in Europe for many years.

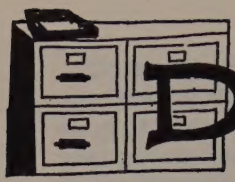
True ☐ False ☐

(11) The only real competition is the one which is expressed by competitive prices.

True ☐ False ☐

(12) Under capitalism, according to Karl Marx, workers are paid only subsistence wages.

True ☐ False ☐



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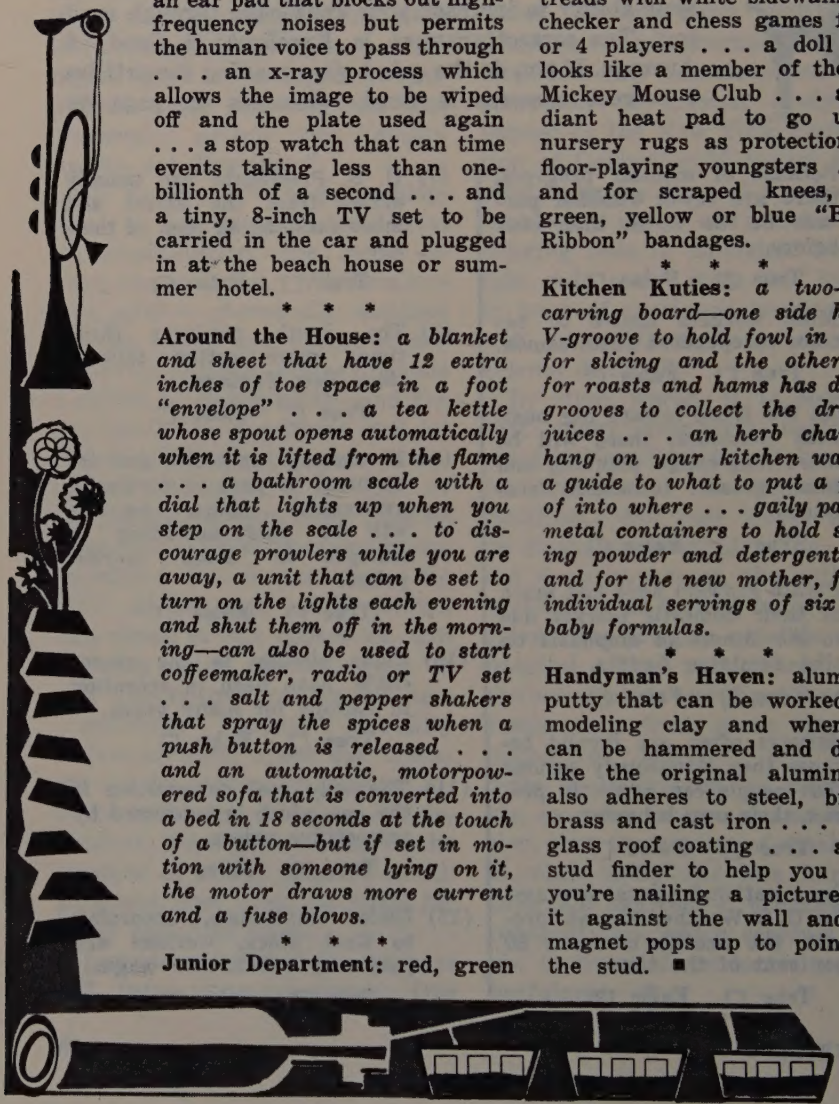

From the World of Industry: an ear pad that blocks out high-frequency noises but permits the human voice to pass through . . . an x-ray process which allows the image to be wiped off and the plate used again . . . a stop watch that can time events taking less than one-billionth of a second . . . and a tiny, 8-inch TV set to be carried in the car and plugged in at the beach house or summer hotel.

* * *

Around the House: *a blanket and sheet that have 12 extra inches of toe space in a foot "envelope" . . . a tea kettle whose spout opens automatically when it is lifted from the flame . . . a bathroom scale with a dial that lights up when you step on the scale . . . to discourage prowlers while you are away, a unit that can be set to turn on the lights each evening and shut them off in the morning—can also be used to start coffeemaker, radio or TV set . . . salt and pepper shakers that spray the spices when a push button is released . . . and an automatic, motorpowered sofa that is converted into a bed in 18 seconds at the touch of a button—but if set in motion with someone lying on it, the motor draws more current and a fuse blows.*

* * *

Junior Department: red, green or blue colored bicycle tire treads with white sidewalls . . . checker and chess games for 3 or 4 players . . . a doll that looks like a member of the TV Mickey Mouse Club . . . a radiant heat pad to go under nursery rugs as protection for floor-playing youngsters . . . and for scraped knees, red, green, yellow or blue "Battle Ribbon" bandages.

* * *

Kitchen Kuties: *a two-sided carving board—one side has a V-groove to hold fowl in place for slicing and the other side for roasts and hams has double grooves to collect the drained juices . . . an herb chart to hang on your kitchen wall as a guide to what to put a pinch of into where . . . gaily painted metal containers to hold scouring powder and detergent . . . and for the new mother, frozen individual servings of six basic baby formulas.*

* * *

Handyman's Haven: aluminum putty that can be worked like modeling clay and when dry can be hammered and drilled like the original aluminum—also adheres to steel, bronze, brass and cast iron . . . liquid glass roof coating . . . and a stud finder to help you when you're nailing a picture—run it against the wall and the magnet pops up to point out the stud. ■